

choice

**Running shoes**

Melinda Gainsford-Taylor uses foot science to choose the right running shoes.

**Strollers**

Are three- or four-wheelers better? CHOICE puts them to the test to help you decide.

On test

- + Fridges
- + Gas heaters
- + Slow cookers
- + Strollers
- + Small stepladders
- + Men's moisturisers

MAY 2008 • CHOICE.COM.AU

Servicing your car

Are dealerships giving you a raw deal?

100% GreenPower:
which is best value?

Glucosamine:
latest research
casts doubt

Supermarket
'duopoly'—
what you
really think



170 PRODUCTS
RATED!

Latest research on food additives: CHOICE tells you which ones to avoid and why

Contents

News



04

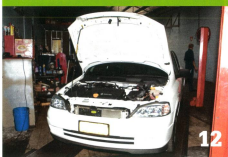
04 Consumer news

- + Stroller almost severs finger
- + Unlicensed property valuers
- + Which bike lights are best?
- + Sunscreen fails SPF test
- + Blu-ray wins the battle
- + Zero return on capital-protected investments
- + Energy ratings for computers
- + Calcium supplements in question.

08 Product news

- + Wind-up MP3 player
- + Computer protection made simple
- + Plug in an instant network.

Features



12

12 Car servicing

You can't rely on getting a good-quality job from dealer service centres.

16 Glucosamine doubts

20 Men's moisturisers

23 Supermarket blues

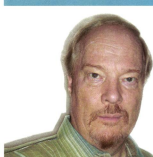
24 Buying running shoes

28 Food additives to avoid

32 Best-value GreenPower

38 Protection from net nasties

Information



10

10 Letters and emails

Perseverance pays off with insurance company; more first aid advice; Apple replaces faulty goods with refurbished products; apology for stereotyping.

64 Recalls and bans

65 Campaigns

- + Copyright rules are too complex
- + Green Watch on carbon offsets.

67 12-month index

68 Hard Word



SUBSCRIBERS' HELPLINE CALL 02 9577 3399



EMAIL ausconsumer@choice.com.au

How CHOICE helps you. CHOICE gives you the power to choose the very best goods and services, and avoid the worst. Because we pay full price for the products we test, we can remain 100% independent. We don't take advertising and we don't accept freebies from industry — our only aim is to give consumers the best possible information about buying products and services. Our income is only from subscriptions to our magazines and choice.com.au, and from other services we supply for the benefit of consumers. We're not a government body and we don't receive government funding.

We have laboratories in Marrickville, Sydney, that test everything from juicers to plasma TVs, coffee grinders to MP3 players and air conditioners. We test hundreds of products every year. There's no hidden agenda to our testing — we simply road-test products so that consumers like you don't get ripped off. CHOICE ratings are based on lab tests, expert assessments and consumer surveys.

CHOICE also has staff who research a wide range of consumer services — everything from the financial industry to the organic food business, supermarket practices to drug companies and pharmacies. They reveal the truth behind the facts and figures, and investigate the quality and the claims.

CHOICE has also always campaigned about consumer goods and services that affect your life. We lobby government and regulators on behalf of all consumers in Australia. CHOICE was established in 1959 and is a not-for-profit, non-party-political organisation.

CHOICE Best Buy

**BEST
BUY**

CHOICE calls a product a Best Buy if it delivers high quality at a comparatively low price. Not every test report has Best Buys.

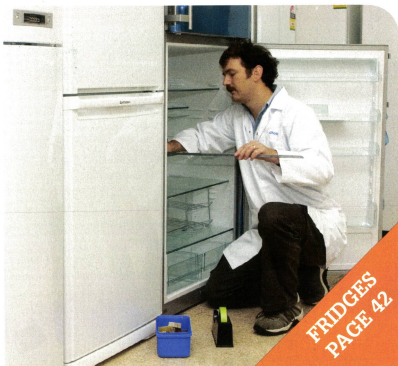
CHOICE Shopper

**CHOICE
SHOPPER**
BEST VALUE

Call 1300 360 655. All you need is the model name and number you want to buy, the price you want to beat, and your CHOICE subscriber number. CHOICE Shopper is available to personal subscribers only.

Subscribe to CHOICE

Personal subscription 1 year \$78, 2 years \$145.
Company/institution 1 year \$125, 2 years \$239.
For subscription and renewal enquiries only, call 1800 069 552



On test

- 42 + Fridges** Energy efficiency is the key to a 'green' fridge, but the refrigerant used in it can make a difference too.
- 48 + Unflued gas heaters** They're convenient and energy-efficient room heaters, but you can't use them in all situations.
- 52 + Slow cookers** CHOICE's home economist loved them — come home from work and your dinner's ready to eat.
- 56 + Small stepladders** Only three out of 12 passed all our safety tests.
- 60 + Strollers** Three- and four-wheelers tested to help you choose which type — both have pros and cons.



CHOICEextra.com.au

This is a free website for CHOICE magazine subscribers. It's an index of articles going back to Jan/Feb 2002, with links to PDFs so that you can read many of them immediately. You log in with your subscriber number, which is above your name on the mailing label that comes with the magazine.

Comment

Healthcare performance info vital for consumers



In November, CHOICE included health system performance reporting as one of our priorities for the new government. We called for every hospital in Australia to report publicly on key performance indicators, including infection rates,

adverse events and surgery outcomes. In February, the Commonwealth and state health ministers agreed that they would provide better performance reporting on hospitals and other health programs.

This is a good outcome for consumers. It will give us information to make better choices about our own care. It will drive improvements in quality and safety as providers compare their performance against each other. And it will lead to more transparency and accountability in the health system.

When we went to print, we hadn't seen any more detail. It's not clear what the performance indicators will be or how the information will be made available. These details are critical to the success of performance reporting. We want to make sure reports are useful and accessible to consumers. Overseas experience has shown that consumers haven't used health system performance information as much as you'd expect. This is probably because it's often hard to get hold of, confusing and far too detailed.

Healthcare professionals and some consumers will want detail, so it needs to be available. But there also needs to be a simple way for consumers to identify whether a hospital is performing well. Ordering of providers based on performance indicators (sometimes called a 'league table') would help consumers make these comparisons. Performance reports also need to be widely distributed and promoted, and accompanied by consumer education about how to use them.

CHOICE will continue to lobby the government about this crucial consumer aspect of healthcare performance reporting. ■

Anny Friis
Editorial Director

+ CAPITAL-PROTECTED INVESTMENTS



From 12.5% to zero return

A guarantee on your investment sounds great but can be deceptive.

Protecting your capital comes at a cost: only a small amount of your money is invested to give you a return.

Late last year investors in a Macquarie capital-protected investment expecting annual returns of around 12.5% received some bad news: their rate of return had been slashed to zero until October 2013, when they'll get their initial investment back.

Macquarie offered a number of similar investments called Macquarie ALPS. ALPS 5 listed on the ASX in April 2006. It was advertised as offering a guaranteed return of 12.5% in the first year (which it achieved), with a potential for higher returns thereafter and a safety net of a capital guarantee.

The investment is linked to 80 stocks listed on the US sharemarket. Every time one of the shares drops by more than 45% of its initial value for three days or more — a so-called 'knockout event' — the interest rate is reduced.

Once this has happened to seven stocks, the interest rate is reduced to 0% permanently. Because of sharemarket volatility, the seventh knockout event occurred late last year.

Macquarie ALPS 5 is just one example of a capital-protected investment. Experts say capital protection comes at a cost: most of your money is used for a low-return/high-security investment to provide the capital guarantee. A much smaller amount of the money is invested to give you a return.

While your capital is protected, you could still make a loss. As a spokesperson from the Australian Securities and Investments Commission (ASIC) says, "If you just protect your capital and make no additional return, you could have actually gone backwards once inflation is taken into account." ■

+ ENERGY LABELLING

Energy ratings could leave computers behind

Did you know your home computer and monitor combo is probably using as much electricity in a year as your washing machine?

A 10-star energy rating system could soon apply to all appliances. Federal Environment Minister Peter Garrett says the government is fast-tracking a new labelling system to help consumers make smarter decisions on the shop floor.

There is a proposal to change the existing six-star energy rating system to a 10-star scale. The six-star rating scheme has been with us since 1986 and applies to fridges, freezers, washing machines, clothes dryers, dishwashers and air conditioners. There will also be a new three-yearly review of energy efficiency standards.

An energy label shows the star rating of an appliance and tells consumers the expected electricity consumption (in kilowatt hours — kWh) of the model per hour or per year for a particular usage pattern.

As the number of electrical gadgets in our homes increases, the contribution computers, home entertainment and office equipment make to our energy bills is likely to come under

increasing scrutiny. By early next year, energy performance standards will apply to home equipment such as computers and televisions. Compulsory efficiency labelling for plasma and LCD TVs will come into effect from April 2009, but a voluntary label might start this year.

However, no compulsory labelling scheme for computers is planned. If leading computer brands adopted a voluntary scheme for energy-efficiency labelling, about 70% of new sales to households would be covered. But that would leave the remaining 30%, known in the IT industry as 'white boxes', without labels.

Even that could be resisted by computer makers. The government hasn't yet made a final decision, and there's a risk that computers won't be labelled at all.

CHOICE thinks the government should make both the TV and computer energy efficiency labelling schemes compulsory, because consumers deserve full and unbiased information about the products they buy. ■

! HELP WANTED

ARE YOU A VICTIM OF ID THEFT?

If you've been a victim of ID theft or fraud, we'd love to hear about it for research for an upcoming report.

REFINANCING YOUR HOME LOAN?

If you've refinanced your home loan, please tell us what type of loan you had before and after the refinance, the amount you borrowed, your reasons for refinancing, whether you're happy with your decision and any traps you encountered.

For either topic, send an email to money@choice.com.au, fax the **Money Team** on 02 9577 3377 or write to **Money Team, CHOICE**, 57 Carrington Road, Marrickville NSW 2204.

CORRECTION

WASHING MACHINES, MARCH 2008

In the table on page 52, we indicated that the BOSCH Maxx Lifestyle Exclusive WAE26470 was discontinued, but in fact it's still available and will continue to be for some time.

+ PRODUCT SAFETY

Stroller danger

Victorian mum Lisa Chan loved her Phil & Teds stroller — until she nearly lost her finger to its folding hinge.



Still recovering from her injury in November last year, Lisa told CHOICE it was a hazard she couldn't foresee at the time of purchase. "We bought the stroller earlier in 2007 — it wasn't something that I'd ever considered could happen," she said.

The accident happened when she attempted to lift the Phil & Teds E3 stroller out of the boot of her car. With her hands on either side of the stroller, one of her fingers became caught in the hinge in the front part of the folding frame. As the front wheel dropped down, the metal joint created a scissoring action that partially severed her finger, requiring immediate surgery.

Although the stroller comes with a warning label that reads "Keep clear when folding", Lisa admits she didn't read the warning closely as it wasn't prominent.

"To be honest, I didn't look at the front hinge that closely — I was more concerned with the stroller being safe for our children.

"You should definitely be made aware of the potential risks and dangers. A simple guard or a safety lock on it would've made it the perfect stroller. But I would never use Phil & Teds again because of the safety hazard," she said.

Sadly, CHOICE has found that Lisa's experience isn't an isolated incident. In Queensland, a number of similar complaints have also emerged from consumers who've suffered injuries when folded Phil & Teds Sports strollers (a newer model similar to the E3) opened suddenly while being lifted.

The Queensland Office of Fair Trading has since raised safety concerns with Phil & Teds. The company has agreed to revisit the product design, particularly the strap designed to keep the stroller closed when folded.

Meanwhile, Phil & Teds will supply an additional free safety strap to secure the Sports stroller when folded. Contact your local retailer or call the manufacturer on 1800 888 586 to get the strap. ■

+ CALCIUM AND HEART DISEASE

Calcium supplements in question

A new study has shown high doses of calcium might increase heart attack risk ... but not everyone is convinced.



Hearing conflicting medical advice is confusing, but no more so than when you hear experts themselves arguing over which preventative measure is better or safe. The latest example stems from a study in New Zealand, which claims to have found that calcium supplements taken by older women can increase their risk of heart disease.

Between 30% and 50% of women and 15–30% of men will suffer a bone fracture as a result of osteoporosis in their lifetime. Calcium supplementation is one treatment aimed at

reducing a person's risk of bone fracture due to osteoporosis.

To be involved in the NZ study, the women had to be five years post-menopause, aged 55 or older, and have a life expectancy of more than five years. Of the 1500 women recruited, whose average age was 74, about half were given one gram of calcium a day and the rest were given a placebo, every day for five years. The findings pointed to a slight trend towards a higher incidence of heart attack or stroke in women taking the calcium supplements compared with the group taking the placebo. A few other studies have shown a similar trend.

Critics argue that the statistics are flawed and the study size was too small to draw a significant conclusion. The researchers agree the study size was small, but say the results were unexpected and they had an obligation to flag calcium supplementation in older women as a possible problem. The next steps are to look at all the major studies in this area and conduct further research. In the meantime, they advise a diet naturally high in calcium and lower-dose calcium supplements for women in their 70s or 80s.

The study's primary researcher cautions that calcium supplements and a high-calcium diet can't be compared. Calcium in a balanced diet is absorbed slowly by the body, in contrast with supplements, which are highly soluble and boost calcium levels quickly and for a comparatively short period of time. The results of this study wouldn't necessarily be replicated by a high-calcium diet.

Further to this study, a report published in the *Harvard Health Letter* has questioned the high amounts of calcium thought to be required to help prevent fractures. Two studies mentioned in the report have shown that very high doses of calcium don't correlate with better prevention of fractures.

However, there's no need to be overly concerned about the results of single studies which are often reported out of context. Medical knowledge is gathered over many years and through numerous studies. Muddying the water even more is that it's common these days for the medical fraternity to benefit from pushing certain drugs or treatments, so objectivity is sometimes questionable. Your best options are to keep informed — read health publications and reputable websites — and ask your GP questions. ■

PROPERTY VALUATIONS

Unlicensed property valuers

A CHOICE subscriber recently paid \$550 to a licensed valuer for a valuation of his home. Less than six weeks later his property sold for \$160,000 (20%) higher than the valuation.



Joe was surprised not just by this, but by how the valuer worked. "He said he doesn't check actual sale prices for houses he's valued. I'd have thought this would be an essential step for a professional valuer."

The Australian Valuers' Institute (AVI) says 20% is an extremely large variation and very unusual. "This could be professional negligence. If the vendor suffered a loss, he could sue the valuer and make a complaint to his professional association," it says.

But consumer protection is lacking, as valuers aren't licensed in the ACT, NT and Victoria. "In non-licensed states, anyone can hang up a shingle on their door and call themselves a valuer, which is a worry," says the AVI.

In SA and Tasmania, valuers need a "suitable qualification". In SA, for example, this could be membership of one of the professional associations or a relevant diploma, degree or masters degree from the University of South Australia, including relevant subjects such as statutory valuations or valuation of investment properties. Licensing exists in NSW, Queensland and WA, but the requirements vary. Another industry group, the Australian Property Institute (API), wants a single national licensing system covering all states and territories.

Joe's case also highlights other concerns. "The valuer made a plug for a real estate agent (in the form of a handwritten note) who would be 'best qualified' to sell our property," Joe says.

Neil Jenman, a property author and educator, says such referrals are becoming more common. "Valuers usually take about 20% of the agent's commission as their referral fee," Jenman says. "I recently spoke to an agent who'd received \$300,000 worth of business from a valuer."

However, the API says it hasn't heard of such payments. "Referrals between valuers and estate agents are possible, but we're not aware of fees or commissions changing hands in the process."

The AVI says such practices are against the rules in NSW. "This should not take place. You must have real estate salesperson qualifications to receive any form of commission for a property sale. Some registered valuers also have real estate licenses or sales qualifications."

The Real Estate Institute of Australia agrees: "In all states, you have to be licensed to receive commissions."

CHOICE supports the call for national uniform licensing of property valuers and we think that all staff engaged in valuations (not just the licence holder) should be required to meet minimum training standards.

In the meantime, in states where licensing is required, make sure any valuer you use has a licence. Otherwise, check that they're members of a professional body, such as the API or AVI. ■

BIKE LIGHTS

Night riders

Bicycle lights are a must for riding at night, but which ones are the best?



When you ride your bike at night or in low-visibility conditions, the law requires that you have lights: a white one at the front, a red light at the back, as well as a rear red reflector. The lights can be

steady or flashing, and must be visible for at least 200 m. Ideally, they should also be visible 50 m from the side.

Ride On, the Bicycle Victoria magazine, recently tested 15 front lights and 15 rear lights to find the best and brightest. A panel of 10 judges from the cycling community — including police, government, retailers, community groups and CHOICE — assessed the lights at night at a distance of 200 m, and also at 50 m with the lights angled at 45° (to simulate the bike approaching an intersection). The flash rate (where applicable) was also assessed.

The test was conducted on a suburban road with a popular cycle path, and during the test several cyclists passed by with very weak bike lights (or none at all). Check your bike lights periodically; if they're looking a bit dim, change the batteries.

All the lights were visible at both distances, but some clearly outshone the rest. The following models came top.

FRONT LIGHTS

BBB BLS-30	\$70
BASTA Polarix BA3	\$40
POWERBEAM MLF 9	\$40

REAR LIGHTS

S-SUN SSL 310R Eaglefly	\$40
TIOGA 600 TCL 54	\$20
POWERBEAM PL2C (front and rear combo)	\$25

Each of the recommended lights can be set to a steady setting and at least one flashing setting.

If you'd like to read the comprehensive two-page report, Bicycle Victoria is offering complimentary copies of *Ride On* magazine to CHOICE readers. Email bicyclevic@bv.com.au or call 03 8636 8888 and ask for the 'Choice Ride On offer'. ■

+ SUN PROTECTION FAILURE

Failed sunscreen sparks safety concerns

CHOICE's New Zealand counterpart tested an Australian-made NZ Cancer Society sunscreen, which failed its sun protection factor claims.



Consumer NZ investigated the Cancer Society's SPF 30+ Trigger Spray after receiving a complaint in late 2007. A consumer claimed her daughter had been sunburnt while using the spray, despite regular reapplications. A test was carried out on 10 volunteers to determine the sun protection factor (SPF) of the sunscreen. The results showed that the randomly purchased batch (34072B exp July 2010) had an average SPF of only 23.3. The affected batch was subsequently voluntarily withdrawn from the market.

The consumer group is also concerned that no SPF tests had been carried out on the product since its launch in 2001. But Australian firm Baxter Laboratories, manufacturer of the SPF 30+ Trigger Spray, maintains that its own independent testing showed that the product stood up to its SPF claims. Baxter also produces sunscreen products for a number of Australian companies, including the Cancer Council Australia.

Tests commissioned by the Cancer Council, after CHOICE alerted it to the NZ report, confirmed that its Baxter-manufactured sunscreen stood up to its SPF claim. Cancer Council Australia told CHOICE it hasn't received any of the affected spray-on sunscreen batch supplied to New Zealand. "Three of our Everyday Spray (250 mL) sunscreens were submitted for testing. Results to date have shown the spray has achieved its stated SPF value of 30," it said.

CHOICE health policy officer Michael Johnston says manufacturers need to test their sunscreens regularly to make sure their SPF claims are accurate. ■

+ FORMAT WARS

Blu-ray wins the battle

HD DVD casualties will be supported by Toshiba but the war continues.



Toshiba has announced plans to discontinue its HD DVD format, effectively

making rival disc format Blu-ray the winner in the next-generation high-definition DVD format battle. The HD DVD format has struggled in recent months, gradually losing support from major US retailers as well as the majority of Hollywood's movie studios, including Warner Bros, which defected to Blu-ray earlier this year. The move is said to have delivered the final blow for the ailing disc format. Blu-ray's victory is also partly due to the inclusion of a Blu-ray player in the PlayStation 3 video game console.

Although HD DVD will be discontinued, Toshiba has committed to ongoing hardware support for early adopters.

Analysts have predicted the HD format will meet increased competition from online music downloads, as has been the case with music. In the US, sales of music CDs have declined steadily since 2006 due to the increasing popularity of buying music digitally via the internet. Apple's online iTunes Store is now the second-biggest music retailer in the US, with more than 50 million customers and over four billion songs sold.

Microsoft in the US also offers movie downloads through its Xbox platform, while retailers such as Amazon and Apple offer high-definition movie download services that allow content to be played on a television, computer or iPod. Locally, video can be purchased from sites such as Realtime.tv and BigPond Movies. ■

In brief**Citibank slashes interest-free days**

Citibank has reduced the number of interest-free days for credit card customers who usually clear their bill each month. It means the number of days in which customers can make their repayments will be reduced from 25 to 14. Having fewer days to pay will make it more likely that some customers will be subjected to a late fee of \$40 — one of the highest late-payment penalties on the market.

Parents confused over kids' meals

A new Australian survey shows that seven in



10 mothers with young children don't know how much food they should give them in a day. Around half the kids in the survey have a snack on all or most days, but almost the same number can't finish their food at meal time. For more on choosing healthy food, go to choicefoodforkids.com.au.

Sticky green claim

The ACCC has ended an eight-month investigation into green claims made on Woolworths Select tissue products. The ACCC wasn't able to determine whether Woolworths' claims were accurate. The retailer plans to place stickers over its claims of sustainable forest fibre and environmental management until new packaging rolls out. Unfortunately, there seem to be no plans to improve products' green credentials.

+ MUSIC ON THE MOVE

All wound up

If you're away from a power source or a portable computer, this media player may be for you.

On an extended camping or sailing trip you may be without a permanent power source, but with this media player you're able to take a bit of luxury with you. The BAYLIS brand is well-known for its invention of the wind-up radio and now it's released the wind-up Eco Media Player. It's marketed as an MP3 player, movie player, FM radio, photo display, text reader, recording device, torch and mobile phone recharger.

We put the Eco Media Player through CHOICE's standard MP3 player test, checking how easy it is to set up, to rip and transfer music files, play music, handle, carry around and wear. We listened to the player with the earbuds provided, carried out technical audio tests and checked battery life. We also tested its recharging capacity by the handle crank.

Unlike other media players, the Eco Media doesn't need to be plugged into a power adapter or PC to recharge (though it can be recharged via a PC), as it has the option of a hand crank on the rear of the player. It claims that one minute of winding gives 40 minutes of MP3 play time. However, it fell short of this in our test. On our first sample we got 12 minutes of life, which was disputed by the manufacturer. So we got a second sample and tested it using different criteria. It ran for 28 minutes — still well below the claim. At least the wind-up mechanism isn't onerous if used for a couple of minutes at a time, though quite noisy.

Don't expect excellent audio quality when listening through the



BAYLIS Eco Media Player

Price \$425 Weight 150 g
Distributor Multi-Powered Products

SCORES

Overall 67%
Ease of use 69%
Sound 55%
Battery 85%
Power source Li-ion battery charged by USB or wind-up mechanism

supplied earbuds. We found the sound 'muddy', with poor treble response, although this improves if better headphones are used.

GOOD POINTS

- Many features.
- It ran for more than 20 hours on a full PC charge.
- Flash memory of 2 GB can be extended with an SD card.

BAD POINTS

- Large and quite heavy.
- Videos need to be converted before being played.
- Not very good sound.
- Turning the wind-up mechanism can become tiring.
- Fell well short of its claimed 40 minutes' play time from a minute's wind-up charge.
- Mobile phone recharge function only works for certain phones.
- Small screen for text and photos.

CHOICE VERDICT

It's rather heavy and you need to wind it often, but if you plan to be away from a power source for an extended period (and can't live without music), it's worth a look. ■

+ INTERNET SECURITY

Black box barrier

Keeping your computer free of net nasties usually requires several software packages, so the complexity of maintaining tight security increases dramatically if you have several computers.

That's where SecureSpot comes in. This little black box is designed to be a one-stop solution for internet protection and you can protect up to four networked computers — including both Windows and Mac — without having to buy additional licences.

SecureSpot is a combination of hardware (the palm-sized black box that you plug into your internet connection) and software, which you install on each computer to be protected. Once this is done, you can look after the security of all the computers from a central point, changing their settings if required and keeping the vital security files up to date.

The device provides the protection of a security suite (firewall, antivirus, antispyware) but also adds net filtering (to stop offensive content popping up on your screen), along with parental controls (so you can determine who uses the computer and for how long) and identity protection (to stop the theft of your personal and financial details).

This combination worked well in our tests, especially in the firewall, antivirus and antispyware sections. The device was also easy to install and configure. The simplicity and convenience of maintaining protection for computers from one central point is a strong point for the SecureSpot, especially if you have both Windows and Mac. It's a big timesaver and a lot less confusing than managing PCs individually.

See the full story on SecureSpot in the May/June issue of CHOICE Computer. Call 1800 069 552 toll-free to subscribe, or go to choice.com.au/magazines. ■



D-LINK SecureSpot

Price \$226
Contact www.dlink.com.au

+ HOME COMPUTER NETWORK

Plug in an instant network

Power-point adapters make linking home PCs fast and easy.

Homeplug AV provides enough speed to let you stream music and movies around the home, easily and securely.

If you've ever wanted to set up a home computer network but put the idea in the too-hard basket, the new breed of powerline networking units might be just what you need. They're simple to set up and can be moved anywhere there's a power point, instantly.

Powerline networking, also called Ethernet over Power (EoP), uses your existing home power wiring to transmit information between PCs and other devices. This avoids the need to install Ethernet cabling or wrangling with a wireless network.

The previous generation of this type of device was called HOMEPLUG Turbo, and in our tests proved more of a networking niche player, being too slow for transferring large files or reliably streaming audio and video.

The new standard for these devices is called HOMEPLUG AV and this time they provide enough speed to let you stream music and movies around the home, easily and

securely. CHOICE Computer tested four brands in the March/April 2008 issue.

You need a pair of the devices to create a network. Plug one into a power point and join it via a short Ethernet lead (provided) to your computer or router, then do the same with another device elsewhere in the house. The HOMEPLUG AV devices detect each other and establish a secure connection between them.

An advantage of this type of network is that it works most places where there's a power point, so it can connect in tricky places where a wireless (Wi-Fi) network can't reach, though it's generally more expensive than a wireless router.

And don't be fooled by the advertised speed of 200 Megabits per second (Mbps) — that's just a technical capability. In reality, the average data transfer rate we saw was only 24.5 Mbps, and the fastest was 40 Mbps. However, this is still fast enough for most purposes, including video and audio streaming, internet phone calls (VoIP), web browsing and so on.

See the full story on HOMEPLUG AV network adapters and results for the four brands tested in the March/April issue of CHOICE Computer. To subscribe, call 1800 069 552 toll-free or go to choice.com.au/magazines. ■

Coming

Vacuum cleaners

In CHOICE's latest test, mid-priced vacuum cleaners (\$400–\$600) proved to work better than cheaper models but to be just as good as many of the more expensive ones. On the downside, one of the best models at removing dirt from carpet left scratch marks when used on wooden floors.



Digital cameras

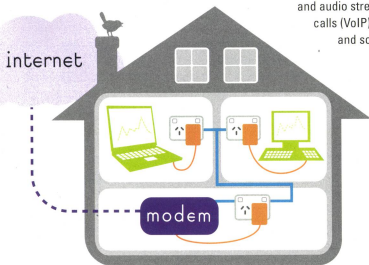
Have you ever missed that perfect shot because your brand-new camera took forever to turn on? CHOICE tested 40 digital cameras to find out not only which models have the largest zoom lens or highest resolution, but also which deliver the best images, start up quickly and capture a photo without delay. The five models in the *What to buy* list will suit a range of users.



Liquid laundry detergents

Laundry liquids don't wash as well as the best powders, but if you prefer to use liquids this test sorts out the top performers. Liquids are also kinder on your garden if you want to use your greywater on it. Unfortunately our testers thought some of them smelt pretty nasty and, worse, the smell persisted in the clothes after washing.

PHOTOGRAPHY: GENE ROSS



Write or email — we want to hear from you.

Your experiences help our research and often let other readers know about scams and rip-offs. Positive outcomes you've had to a complaint you took to a manufacturer, retailer, importer or tradesperson interest us too. See opposite for how to contact us.

More advice on first aid

■ In reference to your article on first aid kits (March 2008), we'd like to point out the following:

- St John Ambulance Australia recommends first aid equipment is matched to the training a person has. It's best to ensure at least one member of a household has a current first aid certificate. Being trained will enable you to use your skills and your kit effectively.
- First aid kits aren't a one-size-fits-all solution. It's important to obtain advice about what you need to ensure you have the right equipment for your lifestyle. For example, if you're a bushwalker, a light, portable kit with essential contents for this purpose is recommended. If you have a family, a more comprehensive kit makes sense, rather than a small kit developed for a single person. St John provides an advice service at all our locations and over the phone.
- Assess your home and family activities for risk factors. This might include a pool, bites and stings from animals and insects, allergies and asthma, sports and special interests of family members. If you play sports, for example, an ice pack in your first aid kit is recommended to treat sprains and strains.
- If you live in or visit an area with an increased risk of bites and stings,
- St John recommends you have a specific bites and stings kit or add items to your first aid kit to mitigate this risk.
- St John also recommends you regularly check your kit contents and restock any used or expired items.



- First aid treatment for a serious burn is cold running water. If the burn is larger than a 20 cent piece, seek medical aid. Lotions, ointments and oily dressings shouldn't be applied to burns while they're still hot. These products are preferred as remedial products, not as first aid.

St John aims to increase the level of first aid skill and knowledge in the community. Having a first aid kit is a must, as quite often we have no control over when and where injury may occur.

As you pointed out in your article, we strongly agree that you get what you pay for. The more expensive the first aid kit, the more comprehensive the contents.

**Peter Le Cornu, Acting CEO
St John Ambulance Australia**

Stereotyping

■ I was surprised to read in the February issue of CHOICE, regarding your test of electronic photo frames, "...they're not the easiest things to set up — if you give one to Grandma, make sure there's a grandson around to make it work for her".

Clichés such as this use stereotypes to reinforce negative attitudes towards older people and don't belong in your magazine — or anywhere else, for that matter.

Jennifer Nisbet, via email

CHOICE says *Guilty as charged. We have no excuse for such age/gender stereotyping, so please accept our apology. Perhaps we should also have pointed out that some of the 'grandsons' among our highly technically minded staff struggled with some of the photo frames.*



Replacing faulty goods

■ Purchasers of Apple products, beware! I purchased an iPod Nano seven months ago and it developed a fault. It was within the 12-month warranty period, so I returned it to the store I bought it from and was advised it would be replaced — with a refurbished product, an iPod with used parts. The Apple head office in Sydney then told me that I'd be getting a new iPod ... that it was "new to me"! I said this was unacceptable, I wanted a brand-new iPod or a refund. They've refused these requests.

This is a huge corporation mass-producing products it won't replace appropriately when faulty. Its focus is clearly on the bottom line, not on its customers. Next time I'll look into a cheap knock-off — at least then I'll know what I'm getting.

Liora Miller, Victoria



CHOICE says *Repairing and reusing faulty products means less waste, something we all strive for. So a refurbished replacement model may sometimes be acceptable, as long as it's identical (or better) and works. On the other hand, if you've paid hundreds of dollars or more for a new and working product, but received one that failed within the warranty period, being offered a refurbished one as replacement could add insult to injury.*

CHOICE thinks improved workmanship and product quality would reduce the probability of breakdowns so soon after purchase. But if a product does fail, we'd have thought a large company like Apple would be more interested in keeping its customers happy, even if that means supplying brand-new replacements for

customers who prefer this. In fact you never know what you'll get — you might or might not get a new one if yours fails while still under warranty. Apple told us that if the customer's "service request matches the iPod's condition, a replacement iPod functionally equivalent to the customer's iPod when new will be sent ... [which] may be new or refurbished".

Fortunately, the story had a happy ending for Liora. Upon hearing how angry she was at being offered a refurbished iPod, the store where she'd bought the faulty one decided to replace it with a new, updated model at no extra charge. Thumbs up to Computers Now in Malvern, Victoria, thumbs down to Apple.

Thumbs up!

■ Michael Carney experienced customer service that far surpassed his expectations. When a vending machine took his money without dispensing a drink, he took the trouble to contact the 1800 number listed. Not only did a real person answer the call, within days he received a written apology from The Smith's Snackfood Company, a money order for the \$2 he lost and a reply-paid feedback form.

■ Magdalena Andrews was very impressed with the service she received from Dyson, which organised to pick up her vacuum cleaner that had stopped sucking and replaced everything to do with the filter and vacuum head totally free of charge, although it was out of warranty.

■ Rosemary Eales gives her Thumbs up to Poppy at Sunbeam, who organised to no charge a replacement of her three-year-old iron that had suddenly stopped working.

Address your letters to **Thumbs up!** at the address below.

LETTER OF THE MONTH

Perseverance pays off

■ After reading your car insurance article (CHOICE, November 2007) and finding my NRMA comprehensive policy up for renewal, I sought a quote from RACQ, which came in more than \$100 per year cheaper. I knew there shouldn't be such a large difference, so did a bit of investigating.

It seems that when I moved four years ago, the insurer changed my address (on each of my policies) but didn't update the "postcode where the car is garaged" field. Cover at the new postcode was significantly cheaper than at the previous one. With two motor vehicle policies and being overcharged for four years, I rang the NRMA's call centre seeking a refund of the difference.

After being referred to a supervisor they reluctantly agreed to refund \$85 difference for the current year's premium on one policy, but not before pointing out that it was my fault for not reading the fine print (on the back of the form). Not happy, I asked to speak to the manager, but was refused. So I demanded their determination in writing to take to the Insurance Ombudsman.

After some time on hold, I was transferred to customer service — what a refreshing difference. They agreed I'd done the right thing advising of my change of address and said I would receive a full refund of the overcharged premiums. At my suggestion they even said they'd look at linking the postcode in the address with the fine print on the reverse of the form when they next revise their call centre software. A refund of \$500+ arrived the next week. My advice is, read the fine print, no matter how busy you are at the time, and demand any determinations in writing — it worked for me.

Wayne Price, Queensland

CHOICE says It's worth persevering when you're trying to sort out a problem with a service provider, and shopping around for your insurance — you can save hundreds of dollars. NRMA told us it doesn't automatically change all details when a customer updates their address because the postal address may be different from where the car is garaged. However, its consultants are now prompted to consider what other addresses across the customer's whole business need to change when someone notifies a change of address.

To thank you for taking the time to write to us, CHOICE awards a prize of a CHOICE book to the 'Letter of the month'. This month's winner receives *Put It In Writing*, or any other book of his choice from the list on choice.com.au/books. We're sorry we don't have the resources to answer all your letters personally, and in the magazine we may edit them or print only an extract.



Email ausconsumer@choice.com.au or mail to:
Letters, CHOICE, 57 Carrington Road, Marrickville 2204

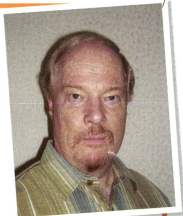
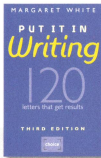


PHOTO COURTESY OF WAYNE



Servicing your car

Think you'll get a better service taking your car back to the dealer's service centre? Our shadow shop shows you need to think again.



nutshell

- Only three out of 28 service centres picked up all four basic faults we planted in various makes of car.
- CHOICE's verdict? Not good enough.

When you hand your car over for a service or repairs, you'd hope for — and it's certainly not unreasonable to expect — honest and expert advice about the condition of your car and any repairs needed. Unfortunately, though, 89% of service centres missed at least one of the faults CHOICE had planted when our female shadow shopper took popular makes of car for a minor service and safety check at their makers' service centres. Clearly something's going wrong.

She took the cars (early to mid-2000s samples of a Ford Laser LXI, Holden TS Astra Classic, Toyota Echo and Subaru Liberty) to dealer service centres in various suburbs of Sydney for each of those four popular car makes. To ensure each car was being judged on an equal footing, an independent mechanic with 20 years' experience, hired by CHOICE for the project, planted the following faults in each car:

- The left reverse light globe was blown.
- The right rear tyre pressure was reduced to 20% below the manufacturer's recommended pressure.
- The spare tyre pressure was reduced to 10 psi.
- The brake fluid was reduced to the minimum level.

Our driver went to each service centre and asked for a minor service and safety check before driving interstate. Our independent mechanic then determined whether the faults had been noted and rectified in our investigation. We wanted to know if dealer service centres would:

- Detect and fix a number of minor faults implanted in the cars taken in for service.
- Detect and mention any pre-existing conditions in the cars that needed repair.
- Recommend any unnecessary work be performed.

We also compared the prices charged for a minor service and safety check for each make.

Detecting faults

Ideally, if each of the 28 service centres we visited conducted a thorough service and safety check as requested, all the faults we'd placed in the cars would have been identified and addressed. Instead, we found that 25 of the 28 service centres (89%) missed at least one of the faults planted in the cars:

- 23 of 28 (82%) didn't increase the spare tyre pressure.
- 12 of 28 (43%) didn't notice the blown reverse light.
- Six of 28 (21%) didn't increase the right rear tyre pressure.
- Three of 28 (11%) didn't fill up the brake fluid in the reservoir.

So, most of the service centres we visited didn't conduct a thorough service. The underinflated spare tyre was the most commonly missed problem, which could have turned into a disaster on our driver's impending interstate trip. The better news was that most discovered the low brake fluid level in the reservoir.

Overall, the Toyota service centres performed best, missing eight out of 28 faults (28 being four faults for each of seven centres) among them. Scorecards for each service centre can be found on pages 13–14.

Are faults invented?

It's bad enough to charge for a necessary service not provided — but what about providing and charging for work and repairs that aren't necessary? It's the stuff of hidden cameras and current affairs TV shows but, happily, this wasn't the norm, involving just six of the 28 centres. Some of the recommended work — and this is giving the mechanics the benefit of the doubt — could have been considered overly cautious rather than an attempt to squeeze extra money out of our shopper. >

Report card

Ford



From www.ford.com.au "Only Ford Dealer service technicians are trained by Ford to be experts in the technical and mechanical components of all Ford vehicles. They have access to the latest engineering information ... to make certain your vehicle is serviced to the highest standards".

Highest standards? Let's see:

- Ford service centres collectively missed 12 of the 28 faults in the car they serviced -- two missed one fault out of four, the rest missed two.
- On the plus side, all the garages supplied an itemised invoice detailing the cost of the service and the work performed on the car, and all except one gave a verbal overview of the service. However, a couple ticked off things as 'done' when they weren't.
- The average price charged was \$236.61 for our Ford Laser and typical prices ranged from \$228.25 to \$248.30 (excluding 'specials'). The variation in price between the cheapest and most expensive service was mainly due to the difference in the cost of the consumables (oil and lubricants).

FORD	REVERSE LIGHT GLOBE REPLACED	RESTORED REAR TYRE PRESSURE	RESTORED SPARE TYRE PRESSURE	RESTORED LEVEL OF BRAKE FLUID	NUMBER OF FAULTS CORRECTED
Dominelli Ford, Kirrawee	×	✓	×	✓	2 of 4
Macarthur Ford, Campbelltown	×	✓	×	✓	2 of 4
Peter Warren Ford, Warwick Farm	✓	✓	×	×	2 of 4
Thomson Ford, Parramatta	×	✓	×	✓	2 of 4
Titan Ford, Brookvale	✓	✓	×	×	2 of 4
Hills Ford, Wailara	✓	✓	×	✓	3 of 4
Sinclair Ford, Penrith	×	✓	✓	✓	3 of 4
Total number of faults corrected	3 of 7	7 of 7	1 of 7	5 of 7	16 of 28

Holden



From www.holden.com.au "All Holden Dealers subscribe to a standard of excellence. We are committed to making sure all Holden vehicles are correctly diagnosed, repaired and serviced, resulting in consistent 'right first time' performance".

That's "all Holden vehicles" except ours, apparently:

- Collectively, the seven Holden service centres we visited failed to detect almost half the faults in our car (13 of the 28), with the worst garage missing all four faults and the best missing none.
- All the garages visited provided an itemised invoice detailing the work done to the car and the cost of the service, though two failed to give our shadow shopper a verbal overview of the service. One told us they'd checked the tyres, but missed the underinflated rear and spare tyres.
- The average cost of a service was \$201.98 for our Holden Astra, though prices varied quite dramatically, ranging from \$140.00 to \$310.00 (excluding 'specials'). The variation in price between the cheapest and most expensive service was mainly due to the difference in the cost of the labour.

HOLDEN	REVERSE LIGHT GLOBE REPLACED	RESTORED REAR TYRE PRESSURE	RESTORED SPARE TYRE PRESSURE	RESTORED LEVEL OF BRAKE FLUID	NUMBER OF FAULTS CORRECTED
Lansvale Holden, Lansvale	×	×	×	×	0 of 4
Paul Wakeling Holden, Campbelltown	×	×	×	✓	1 of 4
Sutton Motors, Waitara	×	×	×	✓	1 of 4
Peninsula Holden (Col Gravford), Brookvale	✓	✓	×	✓	3 of 4
McGrath Holden, Sutherland	✓	✓	×	✓	3 of 4
United Holden, Rockdale	✓	✓	×	✓	3 of 4
Heartland Holden, Penrith	✓	✓	✓	✓	4 of 4
Total number of faults corrected	4 of 7	4 of 7	1 of 7	6 of 7	15 of 28

Report card

Subaru



From www.subaru.com.au "Keep your vehicle performing to exacting standards by taking it to a Subaru service centre".

While Subaru — perhaps wisely — avoids the superlatives used by other companies in extolling the virtues of their service centres, we're not convinced our car would perform to "exacting standards" if we suffered a puncture on a long driving trip and had to use the spare (six of the seven centres failed to fix it).

- Overall, Subaru service centres missed 11 of the 28 faults in the car they serviced, with the worst garages failing to detect three of the four faults and the best missing none of them. Four reported doing things they'd in fact missed.
- All the garages gave our shadow shopper an itemised invoice detailing the cost of the service and the work done to the car. A verbal overview of the service was also given by the counter staff at each service centre visited.
- The average price was \$254, with prices ranging from \$219.55 to \$271.95 for our Subaru Liberty. The price variation was mainly due to the difference in the cost of consumables and their disposal and miscellaneous costs.

SUBARU	REVERSE LIGHT GLOBE REPLACED	RESTORED REAR TYRE PRESSURE	RESTORED SPARE TYRE PRESSURE	RESTORED LEVEL OF BRAKE FLUID	NUMBER OF FAULTS CORRECTED
Penrith Subaru, Penrith	×	×	×	✓	1 of 4
Tynan Motors, Kirrawee	×	×	×	✓	1 of 4
McGrath Subaru, Liverpool	✓	×	×	✓	2 of 4
Bill Buckle Subaru, Brookvale	✓	✓	×	✓	3 of 4
Denlo Subaru, Rose Hill	✓	✓	×	✓	3 of 4
Peter Donnelly Subaru, Campbelltown	✓	✓	×	✓	3 of 4
SVM Subaru, Hornsby	✓	✓	✓	✓	4 of 4
Total number of faults corrected	5 of 7	4 of 7	1 of 7	7 of 7	17 of 28

Toyota



From www.toyota.com.au "[Our specialist technicians] work on Toyotas day in and day out so they understand what makes your Toyota 'tick' and can spot any potential problems or worn parts before they become a safety concern. Better still, their superior knowledge on all things Toyota makes for a quick, accurate diagnosis of the state of your vehicle's health".

That may sometimes be true, but not always.

- Out of the four chains visited in the shadow shop, Toyota service centres came out best, missing a total of eight of the 28 faults they were given to fix. The best picked up all the faults, the worst missed two of the four.
- All the garages we visited supplied an itemised invoice detailing the cost of the service and the work performed on the car, as well as a verbal overview. Three dealers told us they'd checked tyres, yet the spare tyre wasn't reinflated.
- Toyota service centre prices averaged \$193.25, ranging from \$168.25 to \$221.15 for our Toyota Echo. The price variation was mainly due to the difference in the cost of the labour.

TOYOTA	REVERSE LIGHT GLOBE REPLACED	RESTORED REAR TYRE PRESSURE	RESTORED SPARE TYRE PRESSURE	RESTORED LEVEL OF BRAKE FLUID	NUMBER OF FAULTS CORRECTED
Penrith Toyota, Kingswood	×	✓	×	✓	2 of 4
Peter Warren Toyota, Warwick Farm	×	✓	×	✓	2 of 4
Bill Buckle Toyota, Brookvale	×	✓	✓	✓	3 of 4
Clintons Toyota, Campbelltown	✓	✓	×	✓	3 of 4
Phil McCarroll Toyota, Waitara	✓	×	×	✓	3 of 4
Terry Shields Toyota, Granville	✓	✓	×	✓	3 of 4
Stewart Toyota, Sutherland	✓	✓	✓	✓	4 of 4
Total number of faults corrected	4 of 7	7 of 7	2 of 7	7 of 7	20 of 28

CHOICE's shadow shop found that 25 of the 28 service centres (89%) missed at least one of the faults planted in the cars.

< It's interesting that one centre was apparently so busy noting \$306 worth of non-existent faults and unnecessary repairs, it didn't find *any* of the planted faults.

Existing faults

Our mechanic noted all the cars except the Holden had pre-existing conditions, mainly tyre and brake wear. They were all issues that should have been addressed before a long driving trip, yet again, most service centres didn't give any warning about or advice on these problems.

- Six of the seven Subaru service centres correctly pointed out that the brake pads needed replacing, but only three out of seven noted both back tyres did too.
- None of the Ford centres picked that four of the five tyres needed replacing. Three said two tyres did, though they weren't consistent as to which ones, and one simply mentioned they were "getting low".
- Four out of seven centres noted the Toyota's front brake wear, though only two correctly suggested they should be replaced soon (after 5000 km driving).

Who's responsible?

For the companies we looked at, the parent company rarely has direct control over the service centres. Almost all centres are independently owned, operating similarly to a franchise. However, they're supposed to meet certain obligations to the parent company, including some form of agreement to adhere to a code of standards. Mechanics and technicians receive initial training and information on model updates from the company, as well as ongoing training. Ford, Holden and Subaru said they'd address the problems we raised with their service centres. ■

LARGE SURVEY BACKS CHOICE FINDINGS

A recent large car owner survey conducted by JD Power reported that Holden and Ford didn't rate well for service, while Toyota performed well. Subaru's servicing rated in the mid range.



GET A BETTER SERVICE

Make sure you do the following to help avoid unpleasant surprises:

- Do some basic checks yourself. For example, tyres usually have tread wear indicators showing the minimum legal tread; if you know where the dipstick is you can check the level and condition of your oil; and anyone (with the help of a friend) can check lights are working.
- When you're looking for a mechanic, ask friends for recommendations.
- When getting a routine service, make sure the mechanic will ask for your OK if the car requires repair that's above the normal requirements and exceeds the quote by more than, say, 10%.
- Ask for an explanation of the pros and cons of different brands of spare parts, especially if they're not from the original brand of the car.
- If you're expecting major repairs, or if you're not convinced a quoted item really needs attention, get several quotes.
- Ask for an itemised bill that gives details of hours, hourly rates, parts required, part prices, etc.
- Check all the repairs you're being billed for have been carried out. For example, if an engine oil change was done, check the new oil is translucent and honey-coloured. If parts have been replaced, ask to see the old ones (which admittedly may not be very helpful if you don't know your starter motor from your distributor...) and, if feasible, check where new parts have been installed.
- If you're unhappy with any part of the service you've received, discuss it with the workshop manager or owner. If you can't resolve the problem, put your complaint to the management in writing. If there's still no agreement, you can write to your state's or territory's fair trading or consumer affairs department.

CHOICE verdict

The results of CHOICE's shadow shop are poor and show you can't rely on the quality of service you'll get from a dealer's service centre.

All car owners should be able to expect and receive a high-quality service from a dealer service centre. Indeed, car companies reinforce this customer expectation in their own literature. However, as our CHOICE investigation shows, the industry didn't stand up to the rigour of our shadow shop. You aren't guaranteed good service — for every dealer that delivers a competent car repair and service, there's another that will take your money, give second-rate advice and miss vital and obvious faults that need fixing for safety and roadworthiness.

Get a better service, above, gives some advice to help you avoid being ripped off — no matter where you take your car.



Spotlight on glucosamine

It's a popular alternative treatment for osteoarthritis, but does glucosamine really work? New research findings make the evidence look shaky.

nutshell

► The latest research findings cast doubt on whether glucosamine helps relieve the pain of arthritis. You're more likely to benefit from losing weight and doing regular exercise.

► Taking glucosamine still helps some people, though: clinical trials of pain relief in osteoarthritis consistently show a big placebo effect where people feel less pain despite only taking dummy pills.

If you suffer from osteoarthritis, the chances are you've tried glucosamine. Many people swear by it, but does it really work? Or does it work better combined with chondroitin? And are some brands better than others?

CHOICE took a close look at the current state of the scientific evidence and tested 26 glucosamine products from supermarkets and big pharmacies.

Glucosamine confusion

Glucosamine occurs naturally in the body, where it plays a role in the formation and repair of cartilage. The glucosamine in supplements is usually extracted from the shells of prawns and other crustaceans; there's also 'vegetarian' glucosamine available that's made from maize starch.

Interpreting labels and claims is confusing because glucosamine comes in different chemical forms:

- **Glucosamine** itself is the form that's active in the body, but it's never packaged as such because it's unstable.
- **Glucosamine hydrochloride** is a stable form that's used in more than half the products we tested (see the table, page 18, for which ones).
- **Glucosamine sulphate** is the other form used in tablets and capsules, but it's only stable when combined with potassium or sodium chloride. Glucosamine sulphate potassium chloride complex contains only 75% glucosamine sulphate. While most manufacturers make this clear on the label (at least if you read the fine print), NUTRA-LIFE High Potency Joint Care, WAGNER 1000+ Glucosamine and WAGNER Joint Formula Glucosamine & Chondroitin don't tell you how much glucosamine sulphate they really contain, so you could easily be taking a smaller dose than you think.

Did you know?

Osteoarthritis is a major cause of pain and disability that affects more than 1.3 million Australians. It's a condition where there's loss or damage of cartilage tissue in the joints, and it most commonly affects hips, knees, hands and the spine. Wear and tear is a major cause, so we're more likely to suffer from osteoarthritis as we get older: there's evidence that about 50% of people over 65 have it (though not necessarily severely enough for it to be obvious).

It can't be cured (other than by replacing the affected joint with a prosthesis) but there are various things you can do to reduce its impact (see *Other things to do*, page 19), and there are medications to reduce the pain and swelling. The medications most often prescribed are paracetamol and the non-steroidal anti-inflammatory drugs (NSAIDs) celecoxib and meloxicam. But these medications have potentially serious side effects, which can make glucosamine and chondroitin attractive alternatives; check with your GP.

Chondroitin sulphate

Chondroitin sulphate also occurs naturally in the body. It's a major component of cartilage and gives cartilage its rubber-like characteristics that help to absorb mechanical impact on the joints from movement and activity. The chondroitin sulphate in supplements is mostly extracted from tracheas of slaughtered cattle or from pigs' ears and snouts. Another source is shark cartilage.

There's evidence — but it isn't strong — that chondroitin sulphate helps relieve the pain of osteoarthritis and improve joint function. There's also a possibility that it provides an additional benefit when glucosamine and chondroitin are taken in combination.

Making sense of the science

The main criticism of complementary therapies has always been a lack of scientific evidence or the poor quality of published studies. But this isn't true of glucosamine. A recent overview of the subject identified 20 high-quality clinical trials.

To test how well glucosamine works, researchers typically compare the pain levels experienced by groups of arthritis sufferers who are given glucosamine, a placebo or a non-steroidal anti-inflammatory drug (NSAID). Research of this nature is controversial, because humans are complex organisms and studies inevitably produce conflicting results. And more often than not there's some detail in the way a trial is conducted that lays it open to criticism. Considered alone, individual studies are often only pointers — the way forward comes from systematic evaluation of the evidence as a whole.

When we tested glucosamine two years ago (CHOICE, August 2005) the evidence for its effectiveness was looking good. But since then new research findings have seriously muddled the waters:

The UK-based Cochrane Collaboration looked at all published research up to January 2005 and concluded that the evidence is inconclusive because the research findings were inconsistent. The eight most rigorous clinical trials failed to show any benefits from glucosamine over a placebo, whereas a series of studies using a glucosamine sulphate product from the Italian pharmaceutical company Rottapharm consistently showed clear benefits.

A big government-sponsored study in the US that tested glucosamine hydrochloride again found that glucosamine gave no better pain relief than a placebo; it came to the same conclusion for chondroitin sulphate. The only clear benefit was from glucosamine and chondroitin in combination, and then only for a small subgroup of people with moderate to severe knee pain.

A smaller European trial concluded that glucosamine (given as glucosamine sulphate) relieved pain better than a placebo — but this trial was sponsored by Rottapharm. A more recent European trial, independent of drug company support, found glucosamine sulphate was no better than a placebo for treating hip osteoarthritis.

Some experts now say glucosamine hydrochloride isn't effective at all, and question the apparent benefits from glucosamine sulphate as coming from bias caused by industry sponsorship. To complicate matters, clinical trials consistently show a big placebo effect, where people feel less pain despite only taking dummy pills.

But this hasn't stopped some claims in ads and on labels that the benefits from glucosamine are 'clinically proven'. In reality the jury is still out.

Nimble knees

The scientific evidence might be shaky but plenty of arthritis sufferers feel they're getting some benefit from glucosamine. We asked members of CHOICE Online who'd tried glucosamine to tell us whether or not it had helped. About 75% thought it had worked for them.

Judith has osteoarthritis in her knees and ankles, which was treated with the NSAID Vioxx until it was withdrawn. She can't take regular anti-inflammatories because she also has a hiatus hernia, so about five years ago she started taking one 1500 mg glucosamine tablet a day. While this hasn't completely removed the pain or inflammation, she thinks it's reduced it. She now takes fish oil as well and also thinks this has helped.

Paul and his wife **Ann** take glucosamine with chondroitin. He's been able to stop taking Celebrex and Ann has given up the Dichlofenec she'd been taking. He thinks that given the potential risks from the two prescription medications, they're well in front healthwise.



PHOTO COURTESY OF JUDITH AND PAUL

Comparing brands

If you want to give glucosamine a try, despite shaky evidence, which brand is best?

There's plenty of choice — we tested 26 glucosamine products, and combinations of glucosamine and chondroitin sulphate, all widely available in supermarkets and pharmacies (see the table for details). There are big differences in price, but of more concern is that some products don't give you enough glucosamine or chondroitin sulphate to reach the levels tested in clinical trials — even if you take the maximum recommended dose.

How much glucosamine? Three products (see the photo, below) don't contain enough glucosamine to match the dose levels of 1500 mg/day of glucosamine hydrochloride or glucosamine sulphate used in clinical trials, even according to their own labels.

Compounding the problem, two of these products contain significantly less glucosamine than the label >



▶ Even if you take the maximum recommended dose, these three products don't contain enough glucosamine to match the dose levels used in clinical trials.

PRODUCT		AMOUNT PER RECOMMENDED MAXIMUM DAILY DOSE (FROM THE LABEL)			MEASURED AMOUNT (%)
Brand (ranked by price within groups)	Tablets or capsules	Glucosamine hydrochloride (mg)	Glucosamine sulphate (mg)	Chondroitin sulphate (mg)	Measured glucosamine (% of the amount claimed on the label)
MAXIMUM DAILY DOSE 1500 MG OR MORE OF GLUCOSAMINE HYDROCHLORIDE OR GLUCOSAMINE SULPHATE					
Glucosoflex Glucosamine Hydrochloride 1500	Tablets	1500	0	0	100
Healthy Care Glucosamine HCL 1000 mg	Capsules	2000	0	0	97
Nature's Way Maximum Strength Glucosamine 1500	Tablets	1500	0	0	102
Wagner 1000+ Glucosamine	Capsules	0	1500	0	96
Thompson's Ultra Glucosamine 1500 Plus	Tablets	1500	0	150	96
Bioorganics Glucosamine Sulfate Complex 1000	Capsules	0	1500	0	96
Bioglan Glucosamine Sulfate 1000 mg	Tablets	0	1960	0	100
Cenovis Glucosamine 750	Capsules	1500	0	0	98
Nature's Own High Strength Glucosamine 1500	Tablets	1500	0	0	104
Blackmores Glucosamine 1500	Tablets	0	1500 (B)	0	94
Herron OsteoEze	Tablets	1500	0	0	98
Herron Glucosamine 1000	Tablets	2000	0	0	99
Blackmores Joint Formula with Glucosamine and Chondroitin	Capsules	1500	0	450	99
Pretorius Professional Vegetarian Glucosamine 1500 (A)	Tablets	1500	0	0	98
Bioorganics Vegetarian Glucosamine (A)	Capsules	1500	0	0	96
Naturopathica 24 hour Glucosamine Sustained Release	Tablets	2000	0	0	94
Enervite Super Joint & Arthritic Relief 1100 mg	Tablets	0	2250	1400	97
Microgenics Glucosamine 1500 Chondroitin Complex	Tablets	3000	0	200	97
Herron OsteoEze Active	Tablets	1500	0	1200	103
Nature's Way True Strength Glucosamine + Chondroitin	Tablets	1500	0	500	95
GNC Glucosamine 750 Chondroitin 600	Tablets	1500	0	1200	95
Woolworths Select Glucosamine & Chondroitin	Capsules	3000	0	900	93
Bioglan Glucosamine & Chondroitin Plus	Tablets	0	1508	960	95
MAXIMUM DAILY DOSE LESS THAN 1500 MG OF GLUCOSAMINE HYDROCHLORIDE OR GLUCOSAMINE SULPHATE					
Woolworths Select Glucosamine Complex 500 mg	Tablets	0	1130	0	98
Wagner Joint Formula Glucosamine & Chondroitin	Capsules	0	1130	500	86 (C)
Nutralife High Potency Joint Care Arthritis Formula with Glucosamine and Chondroitin	Capsules	0	1130	500	90 (D)

CAN YOU HELP?

Australian research will eventually help to resolve the uncertainty as to whether or not glucosamine sulphate works in alleviating the pain of osteoarthritis. The George Institute, affiliated with the University of Sydney, is recruiting people with painful knees for the LEGS Study. This study, funded by the National Health and Medical Research Council, will evaluate the effects of glucosamine, with and without chondroitin, on pain and cartilage loss. If you're aged 45 to 75, have chronic knee pain and live in or near the Sydney region, go to the study website for further information and contact details: www.thegeorgeinstitute.org/LEGS.

USING THE TABLE

Glucosamine sulphate Some manufacturers only give the amount per tablet or capsule of glucosamine sulphate potassium chloride complex. In these cases we've calculated the amount of glucosamine sulphate.

Measured glucosamine We measured the amount of glucosamine hydrochloride or sulphate (averaged over 10 tablets or capsules) and compared this as a percentage of the amount claimed on the label.

Cost per maximum recommended daily dose This is based on the dose recommended on the label and prices we paid in Sydney supermarkets and pharmacies in December 2007. Larger sizes, which could be cheaper, may be available.

TABLE NOTES

(A) Glucosamine made from maize starch.

(B) Glucosamine sulphate sodium chloride complex; others are glucosamine sulphate potassium chloride complex.

(C) Manufacturer told us its testing gave 98%.

(D) Manufacturer told us its testing gave 100%.

0.16
0.18
0.25
0.28
0.30
0.31
0.33
0.34
0.40
0.44
0.50
0.51
0.63
0.65
0.76
0.77
0.80
0.89
0.90
1.13
1.17
1.20
2.25
0.28
0.45
0.70

< claims. Under government regulations, the amount of active ingredient per tablet or capsule must be not less than 92.5% (and not more than 107.5%) of the amount stated on the label. We measured the amount of glucosamine per tablet or capsule and found that, while most were within the acceptable range, two brands contained less. These were NUTRALIFE High Potency Joint Care Arthritis Formula with Glucosamine and Chondroitin (90%) and WAGNER Joint Formula Glucosamine and Chondroitin (86%) — they're shown in orange in the table.

How much chondroitin sulphate? The generally recognised therapeutic dose is 800–1000 mg per day and in the big US trial the dose level was 1200 mg/day. Only three products give you 1200 mg/day or more of chondroitin sulphate if you take the maximum recommended dose (HERRON OsteoEze Active, GNC Glucosamine 750 Chondroitin 600 and ENERVITE Super Joint & Arthritic Relief 1100 mg) — they're also orange in the table.

Is glucosamine safe?

The one thing that clinical trials have proved with reasonable certainty is that glucosamine and chondroitin are generally safe. However, some people are exceptions:

- If you suffer from an allergy to seafood you should avoid the majority of brands, where the glucosamine has been made from crustacean shells. Two brands (PRETORIUS Professional Vegetarian Glucosamine 1500 and BIOORGANICS Vegetarian Glucosamine) are of vegetable origin.
- If you have diabetes, check with your GP before taking glucosamine. While it appears safe in the short term, there's evidence that in the long term glucosamine could make your diabetes worse.
- And people taking blood-thinning medicines, such as warfarin, should talk to their doctor before taking chondroitin, as it can increase the risk of bleeding. Chondroitin also occasionally causes stomach upsets. ■



OTHER THINGS TO DO LIFESTYLE TREATMENTS

Experts say that lifestyle changes are crucial in successfully treating osteoarthritis.

Regular exercise is one of the most effective treatments — with the bonus that it will improve your health generally. Low-impact exercise, with less weight or force going through your joints, is best. Examples are walking, cycling and swimming. A physiotherapist can suggest targeted exercises to reduce pain and improve the function of the affected joints.

Weight loss from exercise and diet can reduce the severity of symptoms, especially for people with knee osteoarthritis. It reduces the impact load on the joint and can improve joint flexibility and reduce pain.

ALTERNATIVE TREATMENTS

We also checked out some other popular alternative treatments. They're included as an extra in some brands of glucosamine, but none of them has been as thoroughly researched as glucosamine and chondroitin.

Those that might help but for which the evidence is inconclusive include:

- Acupuncture.
- Avocado-soybean unsaponifiables.
- Capsaicin cream.
- New Zealand green-lipped mussels.
- Ginger extract.

Those for which the evidence suggests they're of little or no benefit are:

- Willow bark.
 - Selenium.
 - Vitamins A, C, E.
- As all these therapies haven't been thoroughly tested, it's not known if they're all safe or unsafe. Always talk to your doctor before trying them. Complementary medicines need to be treated with the same care and respect as prescription medicines. They can cause side effects and interfere with other medicines and make them less effective.

CHOICE verdict

The scientific evidence for glucosamine or glucosamine/chondroitin is making it seem doubtful that it's effective at relieving the pain of osteoarthritis. However, plenty of people who suffer from osteoarthritis think it's worked for them, so it's still worth giving glucosamine and chondroitin a try, even if the only result is the placebo effect. If you get any effect at all, it's likely to take four to six weeks. On the other hand, exercise and weight loss are likely to benefit you more.

Use the table as a guide to what to choose. It lists the products in the order of cost per maximum recommended daily dose, so start with one of the cheapest that has a dose of 1500 mg/day or more of glucosamine. Avoid any that give you less than 1500 mg/day of glucosamine.

If you think it's worthwhile trying the glucosamine/chondroitin combination, only three of the products (shown in orange in the table) contain the level shown to be effective in the big US trial — and they're among the most expensive per daily dose.



▶ Chris is a 26-year-old cabinetmaker living in Sydney and, like an increasing number of Australian men, he's not ashamed to admit he has a daily grooming routine.

nutshell

▶ Moisturisers aren't just for women: men's grooming products are a \$150–\$200 million a year industry. ▶ You don't have to pay a fortune for a good moisturiser — of the six top-rated products, three cost less than \$15 for 50 mL.

According to figures from research organisation IBISWorld, last financial year the men's grooming industry (excluding shaving products and deodorant) was worth \$150–\$200 million — and it's expected to keep growing, with more visible marketing campaigns and continuing product development.

Brands such as CLINIQUE, NIVEA and L'OREAL have cashed in on today's image-conscious male by releasing their own face-care ranges for men. Anti-fatigue moisturisers, eye creams, exfoliants and even men's make-up have appeared in department stores, with promises to deliver man-friendly results such as “fit skin” and “skin that's in top shape”.

We decided to recruit some blokes (57 in all) to test eight widely available ‘normal skin’ moisturisers on the market, to see which ones impressed them

Facing it like a man

“Every couple of days I use a face scrub, and I use a face wash pretty much morning and night; then I moisturise at least once a day,” Chris says. Men's moisturisers are big business, but which is best?

the most in terms of performance, texture, absorption and fragrance. We also threw in one regular sorbolene lotion to see how it compared with specialised products — but sadly for this product, trialists liked it the least.

Do we need to moisturise?

Our sebaceous glands secrete sebum (an oily mixture of fats that maintains skin's moisture), but sebum production slows as we age, which leads to drier skin. Environmental factors, such as soap, air conditioning, exposure to sun and hot showers can also lead to moisture loss. Moisturisers help restore the skin's fat and moisture balance, working in the outer layer only by plumping up the dry cells with water and/or fats and slowing down the loss of moisture, so the skin looks soft and smooth.

What to buy

BIOHERM HOMME Aqua Power

PRICE \$46 per 50 mL

This moisturiser was most often described as having a creamy and/or smooth texture and trialists most often described their skin as feeling smooth and soft after three days of use. The majority indicated it was ‘mostly absorbed’ after application. However, trialists couldn't agree on the strength of the moisturiser's fragrance, with almost equal numbers rating it as subtle, moderate and strong.

TRIALIST COMMENTS

“I would not hesitate to buy this regardless of cost. By far the best.”
“Took a while [to absorb]. Great smell, texture. OK on the skin.”



CLARINS MEN Moisture Gel

PRICE \$49 per 50 mL

The majority of trialists said their skin felt smooth after three days of using this moisturiser and it was ‘mostly’ or ‘completely’ absorbed after application. Trialists most often described this moisturiser as having a subtle to moderate fragrance with a citrus scent, and it was most commonly thought to have a creamy or smooth texture. It was the second most expensive of the moisturisers trialled.

TRIALIST COMMENTS

“Strong [smell] initially but wore off to ideal level. Silky smooth but not slimy.”
“First blue sample — colour freaked me.”



Moisturisers can also reduce the appearance of wrinkles through this plumping action, but they won't slow the aging process or penetrate the outer layer of the skin — no matter how impressive the claims on the bottle. The most common cause of wrinkles is UV radiation from the sun's rays. These break down the skin's collagen and elastin, resulting in wrinkles. So applying a 30+ sunscreen to your face daily is the best defence against premature aging.

There's essentially no difference between men's and women's skin except that men have larger sebaceous glands. Men could use women's moisturisers with no adverse effects — but they probably wouldn't want to because of the fragrance, the packaging and the feel.

When choosing a moisturiser, pick one that matches your skin type. If you have oily skin, use one that doesn't contain heavy oils or clog the pores; for sensitive skin use one that's designed for it, and that's free of ingredients that can irritate, such as alcohol, lanolin and parabens.

Moisturisers on trial

While six products stood out (see *What to buy*, below), the trialists thought they all worked in terms of keeping their skin hydrated. BIOTHERM Aqua Power was the moisturiser most often rated as working 'very well', closely followed by L'OREAL and L'OREAL.

Three of the top four moisturisers were the most expensive in the trial but one, L'OREAL Paris Men Expert, was only \$14.25 per 50 mL. NIVEA and THE BODY SHOP moisturisers, with a lower score but also in the *What to buy* list, are good buys at \$7 and \$10 respectively.

Our trialists rated moisturisers with an 'aftershave', 'citrus' or 'herbal' smell more highly than those with a 'medicinal' smell. They also liked their moisturiser to have a 'creamy' or 'smooth' texture, and disliked those which were 'gluggy' or 'runny'. The SHISEIDO was described by one trialist as, "Very runny, to the point of being difficult to apply." >

Big brands have cashed in on today's image-conscious male by releasing their own face-care ranges for men.

What to buy

LANCÔME MEN Hydrix Micronutrient Moisturizing Gel

PRICE \$75 per 50 mL

Most trialists said their skin felt smooth and soft after three days of using this moisturiser and that the product was 'mostly' absorbed or 'completely' absorbed after application. It was most often described as having a subtle to moderate fragrance with a creamy and/or smooth texture. It was the most expensive in the trial.

TRIALIST COMMENTS

"Nice smell, but not masculine. Reminded me of how mum smells after putting on 'Oil of Olay' at night."
"I thought this product was wet the most appealing."



L'OREAL PARIS MEN EXPERT Hydra Energetic Anti-Fatigue Daily Moisturising Lotion

PRICE \$14.25 per 50 mL

Trialists described this moisturiser as having a creamy and/or smooth texture and the majority said their skin felt smooth and soft after three days of use. Most indicated the product was either 'mostly' or 'completely' absorbed into their skin after application. It was the fourth cheapest brand in the trial.

TRIALIST COMMENTS

"Quite a good moisturiser that absorbed well."
"Left a tingling sensation on the skin in shaved areas, which was OK. Worked quite well, but strong smell."



NIVEA FOR MEN Cooling Gel Moisturiser

PRICE \$7 per 50 mL

Trialists most often said this moisturiser had a thin texture and that their skin felt smooth or soft after three days of use. The product was found to be 'mostly' or 'completely' absorbed after application. It was the second cheapest product included in the trial (after the sorbolene).

TRIALIST COMMENTS

"Refreshing, and absorbed well; texture was fine and it did moisturise the skin."
"My skin felt sticky and wet for many hours after application."



THE BODY SHOP FOR MEN Face Protector

PRICE \$10 per 50 mL

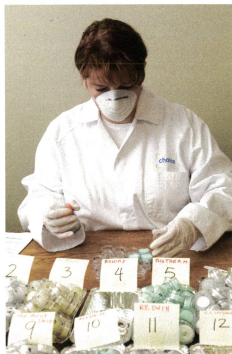
The majority of trialists thought this moisturiser had a creamy or thick texture and that it left their skin smooth after three days of use. The product was found to be 'mostly' or 'completely' absorbed after application. It was most often rated as having a moderate scent, although most described it as herbal or medicinal. This was the only moisturiser in the trial that claims to be 'against animal testing' and was the third cheapest in the trial.

TRIALIST COMMENTS

"Easy to apply and leaves enough moisture not to feel dry, and yet not too much as to feel greasy."
"The residue hung around longer and felt more oily to the touch, even hours after."



HOW WE TESTED



The trialists 57 male Home Testers with self-diagnosed 'normal' skin were sent six unbranded pots of moisturiser to trial.

The moisturisers were chosen if they were targeted specifically at men, were labelled for normal skin, and didn't contain any special properties, such as sunscreen. The L'OREAL Paris Men Expert product does, however, contain vitamin C and caffeine, but was included as it was the only product by L'OREAL that fitted the criteria.

The user trial Trialists tested two moisturisers at a time, one on their left cheek and one on their right. Each moisturiser was tested

for three consecutive days, at the end of which trialists completed a survey rating each moisturiser for performance, texture, absorption, fragrance and then an overall score. All scores were converted to a percentage and rounded to the nearest 5%.

Moisturiser won't slow the aging process or penetrate the outer layer of the skin — it just makes the skin look soft and smooth.

About the rest

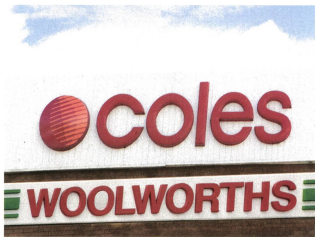
The table gives a summary of performance scores for all tested products. For the products that didn't make it into the *What to buy* list, some considerations include:

- CLINIQUE Skin Supplies for Men was thought to have a creamy or oily texture, and while it didn't have any major limitations, it only scored 55% overall.
- SHISEIDO Men Moisturising Emulsion was the equal lowest-scoring men's moisturiser and was most often described as having a runny, thin texture, which a few trialists didn't like.
- REDWIN Sensitive Skin Sorbolene Moisturiser was equal last and rated poorly for performance, texture, absorption and fragrance. Its smell was described as 'medicinal'.

TABLE NOTES

* Calculated from the prices we paid in August/September 2007.

PRODUCT	SCORES					DETAILS			
	Overall score (%)	Performance score (%)	Texture score (%)	Absorption score (%)	Fragrance score (%)	Type	Available from supermarkets?	Size (mL)	Price per 50 mL (\$)*
Brand (in rank order; number of trialists in brackets)									
Biotherm Homme Aqua Power (40)	65	65	70	75	65	Gel		75	46.00
Clarins Men Moisture Gel (35)	65	60	65	80	60	Gel		50	49.00
Lancôme Men Hydrix Micronutrient Moisturizing Gel (37)	65	65	65	85	60	Gel		50	75.00
L'Oréal Paris Men Expert Hydra Energetic Anti-Fatigue Daily Moisturising Lotion (37)	65	65	65	80	60	Cream	✓	50	14.25
Nivea for Men Cooling Gel Moisturiser (35)	60	60	60	80	60	Gel	✓	75	7.00
The Body Shop For Men Face Protector (38)	60	60	60	75	50	Cream		100	10.00
Clinique Skin Supplies for Men M-Gel Lotion (23)	55	55	50	70	45	Gel		100	29.00
Redwin Sensitive Skin Sorbolene Moisturiser (33)	45	50	40	50	25	Cream	✓	500	0.40
Shiseido Men Moisturising Emulsion (39)	45	50	40	60	50	Cream		100	27.50



nutshell

► Most CHOICE members surveyed think there's not enough competition in the supermarket sector, which is dominated by just two chains, Coles and Woolworths.

► CHOICE is calling for a national comparison product pricing scheme to help shoppers get the best deal.

Survey highlights shopper concern

CHOICE surveyed more than 1000 subscribers in February 2008 and found that nearly two thirds of consumers think there isn't enough price competition between supermarket chains.

As part of CHOICE's submission to the Australian Competition and Consumer Commission (ACCC) Grocery Inquiry in March 2008, a survey of 1041 online and magazine subscribers provided a snapshot of consumer attitudes towards supermarket prices.

The market dominance of the 'big two' of the supermarket sector — Coles and Woolworths — was very apparent, with 78% of those surveyed saying they mainly do their grocery shopping at one of the two. While there are signs that smaller players are attempting to gain a foothold in the market, it's clear they lack space to compete. Only 14% of shoppers gave preference to smaller chains such as IGA and Aldi. Most admitted convenience of location is the main factor behind where they choose to shop (73%).

The survey also revealed that the majority of consumers believe there isn't enough price competition between supermarket chains (64%) — a likely result of the high level of market concentration in the sector.

Hard to compare prices

When asked about the ease of price comparison across supermarket outlets, 37% said they found it difficult to compare prices and 28% that they didn't even attempt comparison. Many found the large number of supposed 'sales' and 'specials' confusing. A similar number of consumers also thought the difference in product sizes across brands makes it hard to compare prices.

As food prices continue to climb, consumers are demanding clearer price information on supermarket shelves. This is reflected by the fact that almost 90% of consumers surveyed said they'd find 'comparison product pricing' useful for spotting better deals.

Comparison product pricing, also known as 'unit pricing', requires supermarkets to display prices on shelves according to a standard unit of measurement, such as price per 100 mL or per 100 g. For example:

pasta X in a 450 g pack at 50 cents per 100 g vs pasta Y in a 500 g pack at 48 cents per 100 g. Such schemes already operate in the US and parts of Europe and the practice was introduced in Australia by Aldi late last year.

Currently, supermarkets in Australia must show the unit price for meat, fruit and vegetables, but face no similar requirement for packaged goods. Aldi has adopted unit pricing voluntarily, based on UK regulations.

CHOICE thinks the introduction of mandatory comparison pricing will improve competition by allowing better price comparability across brands and sizes within a product range, and also permit better price comparability across different grocery outlets.

"It's vital that a unit pricing system is consistent across different supermarket chains and across different states and regions," CHOICE CEO Peter Kell said.

Major reforms proposed

In the ACCC's first public hearing into grocery prices, CHOICE has proposed three major reforms into the grocery industry. They include:

- A food and grocery consumer price index to be published by the Australian Bureau of Statistics each quarter, which would include prices for typical baskets of groceries for different family sizes.
- A national comparison pricing scheme to improve price comparability for consumers.
- Reforms to the Trade Practices Act to put a cap on the market share held by major supermarket chains.

"In an environment of rising prices, it's vitally important that consumers can have confidence the prices they're charged for essential foods and groceries are fair, and aren't the result of market power, particularly in relation to the two major grocery chains in Australia," Mr Kell said.

For all CHOICE's views on supermarket pricing and a copy of our submission to the ACCC, go to choice.com.au and type 'ACCC grocery prices' in the search box. ■

Best **foot** forward

For the first time, in 2007 more women entered fun runs than men. If you're getting fit this way, the right shoes are crucial.



▶ Melinda Gainsford Taylor is a former world sprint champion and winner of over 13 national titles, but even she benefited from help choosing her running shoes.

nutshell

▶ Knowing your foot type is the first step to getting the right runners.

▶ Price only matters to a certain point — the most expensive shoes will simply offer you better durability compared to mid-range shoes.

If you're new to running or power walking, to have any hope of keeping up your motivation to get fit or lose weight you'll need a decent pair of running shoes. But choosing them can be overwhelming (and expensive), and CHOICE discovered even professional runners welcome some help.

Every time you run, your feet absorb a force two to three times your body weight. That's the equivalent of standing on tiptoe while carrying two people your size on your shoulders. As the same force is applied 9500 times during a 10 km run, it pays to get the right shoes for injury prevention. But how do you know what's right for you?

A good way to ensure you're buying the right shoes is to visit a specialist running store. Staff will usually offer to check your foot type (see *One shape doesn't fit all*, page 27) and provide advice based on your needs and budget.

Professional shoe sellers will measure the length and width of each foot, and ask about any past or existing foot injuries and the frequency and distances you plan to run. All these factors will affect what shoes you need.

Plenty of stores offer free in-house analysis, matching customers to the most appropriate footwear. For example, The Athlete's Foot has a pressure-point device that identifies where you put the most pressure on your foot throughout different phases of your step. Shoes are then recommended based on whether you have a flat, neutral or high-arched foot type — a key factor behind your running style.

But while this style of screening provides some information about loading patterns, it reveals little about the runner's actual foot motion over time while running.

Melinda's experience

To find out more, CHOICE invited former world sprint champion Melinda Gainsford Taylor to trial a more comprehensive screening method at a specialist running shoe store in Sydney. The process, known as 'video gait analysis', involves filming a customer's running motion on a treadmill and analysing their biomechanics (level of foot stability) by replaying the footage. You can get a similar analysis of your running style at a sports podiatrist, but most specialist stores provide a simpler version of the service free.

To begin, Melinda was asked to jog on the store's treadmill for approximately five minutes while her running style was filmed. From the video footage, store manager Brent Harris (see *Meet the experts*, page 26) determined she has a neutral foot type, but has a slight tendency to overpronate (her foot rolls in slightly too much when running).

3 PAIRS of running shoes were chosen for Melinda, based on what's structurally suitable for her feet. They were mid-range 'stability' models from Asics, Brooks and New Balance, all retailing for between \$170 and \$200.



What to look for

ELEMENTS OF A RUNNING SHOE

Tongue Covers the instep of the foot, protecting it from the laces.

Upper The top layer of material that holds your foot to the sole. The material used and the design of the upper are crucial because it can assist in keeping your foot dry and cool. The upper should also be resilient and not tear during normal use.

Foam layer The 'soft' feeling you experience when you try on a pair of shoes depends on the quality of the top layer of foam. Most foam layers are made of EVA (ethylene vinyl acetate), which is hundreds of thousands of foam cells that contain air or gas.

Medial post The section built inside the middle or the arch section of the midsole. Most manufacturers make it a contrasting colour to the rest of the sole to indicate that the shoe provides additional support. The bigger and harder it is, the more support it gives against overpronation (your foot rolling in excessively). Shoes that provide the right amount of support for your feet can reduce the chance of an injury recurrence by up to 20%.

Heel counter The internal 'cup' that wraps around your heel. It's designed to help keep the foot stable and prevent excessive movement within the shoe.

Midsole Between the outer sole and the upper material, the midsole is where the protective foam layer and cushioning is located.

Cushioning Located under the foam layer, this is the patented technology that cushions the foot and improves the shoe's durability. It could be a liquid gel, grid or wave plate, depending on the brand.

If the shoe fits ...

To make a final choice, Melinda was asked to jog on the treadmill in each of the three pairs of shoes chosen for her and decide which ones felt most comfortable. While she thought all three pairs had a good cushioning system and provided stability when she ran, she had a clear preference when it came to overall comfort and fit.

"The Asics fitted like a glove and were extremely comfortable. They completely moulded to my foot," said Brent. "The Brooks were a bit firmer, and because New Balance was a wider shoe, there was more movement in it than the other two."

While Brent thought the Brooks put Melinda's feet in the most neutral alignment, Melinda preferred the Asics shoes. As all the shoes selected for Melinda were structurally suitable, the decision came down to what felt best for the runner.

"There are things that a third person can't tell," said Brent. "For example, the feel of the upper around the foot or the smoothness of the ride."

He recommends what many would feel intuitively: when you're choosing between shoes that are structurally suitable for your feet and have a similar price and features, go with the brand that feels best on your feet.

Expert's verdict

Associate Professor Dr Aron Murphy, from UTS's School of Leisure, Sport and Tourism, examined the three shoes we picked for Melinda and found a very similar level of quality at this mid-price point. The major differences were in some of the features offered by each brand — each has something that makes it different and gives it, it's hoped, a marketing edge.

For example, the New Balance shoe has the brand's top-range foam in the heel and forefoot (area between the arch and toes), made with a mix of three different rubbers. There's also a spongy surface underneath the insert, designed to increase comfort and decrease impact — a feature the other shoes don't have.

On the other hand, Dr Murphy noted that the Asics shoe has an excellent heel-to-toe transition (smoothness of the forward rolling motion of your foot as you run) which he attributed in part to the company's Impact Guidance System and the forefoot design. And the standout feature of the Brooks shoe is its full-length midsole (the protective foam layer and cushioning between the outer sole and the upper material) and a 'Progressive Diagonal Rollbar', which serves to control excessive inward roll of the foot. >

When choosing between running shoes that are suitable for your feet and have a similar price, go for the ones that feel best on your feet.

In the mid-price range (\$150–\$200) you can expect good durability with top-range cushioning, performance and overall quality.

Meet the experts



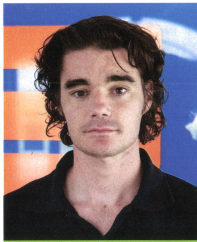
Caleb Wegener

Caleb is a footwear researcher and a practising sports podiatrist, specialising in biomechanics of the foot and leg. He's a member of the Australian Podiatry Association, Sports Medicine Australia and the International Society of Biomechanics.



Aron Murphy

Dr Aron Murphy is Associate Professor in the school of Leisure, Sport and Tourism at the University of Technology, Sydney. He's worked with elite athletes across a number of fields and has published extensively in areas including sprint techniques and running efficiency.



Brent Harris

Passionate runner and manager of specialist store Running Science, where we took Melinda Gainsford Taylor, Brent is experienced in advising on running footwear based on foot type and running style.

< **Functions of a shoe**

Running shoes are designed to perform two main functions:

Cushion the foot This function is provided through the midsole of the shoes. According to sports podiatrist Caleb Wegener, running shoes don't reduce the force that goes through the body. What they do is increase the time taken for that force to be applied to the body. This is important because the longer it takes for the force to be applied to the body, the more time the body has to adapt to that force.

Support the foot The shoes do this by reducing the amount of 'rolling in' or rotational movements that occur in the foot during the contact phase of running and walking. One of the most common ways to achieve this is by altering the densities in the shoe. This is done by adding a medial post (a section inside the middle or arch section of the shoe — see *Elements of a shoe*, page 25) to provide more density on the inside, which reduces the amount the foot collapses inwards.

Another way to provide stability is by altering the last or the inside shape of the shoes. A straighter shoe provides extra support for a flatter foot, while a curved last is more suitable for a higher-arched foot.

What are you paying for?

While there are notable differences between a low-end (under \$80) and a mid-range (\$150–\$200) shoe in the way they perform and age, differences should be slight past the mid-range point. According to Caleb Wegener, durability is the most obvious difference as you move towards higher price brackets. An increase in price in most shoes is due to a greater amount of more expensive cushioning material in the midsole of the shoe. These additional midsole components won't improve the immediate function of the shoe, but they do improve the durability of the cushioning properties.

For example, shoes under \$100 may only have basic EVA midsoles (EVA is foam cells containing air or gas), which tend to wear out fairly rapidly after purchase, while most shoes over \$100 will have proprietary cushioning technology (such as Nike Air, Asics Gel or New Balance Abzorb). Regardless of the technology, in the mid-price range (\$150–\$200) you can expect good durability with top-range cushioning, performance and overall quality.

A high-end shoe (\$200+) will keep that 'new shoe' feel for longer, whereas some cheaper shoes may only feel 'new' for a week or two. Other differences include features such as UV protection, seamless uppers and fancy looks.

The bottom line is that paying top whack doesn't mean you'll automatically get the right pair of shoes for you.

One shape doesn't fit all

As Melinda's experience shows, the most suitable pair of running shoes has more to do with a person's foot type than the latest technology or the brand name.

While a running specialist can help identify your running style, it's also well worth understanding your personal biomechanics yourself, so you can filter through marketing jargon and find the right features.

To do this, you have to find out whether you're a neutral runner, an overpronator or an underpronator. This will determine what category of shoes you need.

For a bit of DIY foot assessment, you can get an idea of your foot type by checking your wet footprints, or looking at the wear pattern on your current pair of running shoes.

Overpronation About 75% of the population fits into this category. In running terms, feet that rotate inward too much are said to overpronate. Down the track, this can lead to several running-related overuse injuries, including strain on ankles, knees and hips.

A likely sign of overpronation is excessive wear on the inside edge of the soles of your shoes. Your wet footprints may also tend towards the flat type, showing a print of the whole sole of the foot. Depending on the degree to which you overpronate, you'll need either 'stability' or 'motion-control' shoes.

Stability shoes are good for mild overpronators. They have a small medial post and a curved last.

Motion-control shoes are designed to correct more severe overpronation. They're typically heavier and have a hard post on the inside rear section of the shoe. This prevents the inner part of the shoe from collapsing in and slows the rate of overpronation.

If you're an overpronator but wear shoes designed for a neutral runner, excessive wear is likely to be a problem, as is the risk of injury.

Underpronation If your feet don't roll inwards enough, less shock is dispersed on heel strike and it can increase the amount of force through the legs.

Looking at your right leg from the back

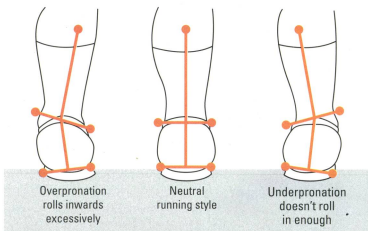


ILLUSTRATION: CYNTHIA RICE

People who underpronate tend to show excessive wear on the outside edge of the soles of their shoes. They need shoes with ample cushioning, to compensate for reduced shock absorption.

Neutral If you've got a normal footprint, 'neutral' or stability shoes are best for you. Avoid motion-control shoes designed to control severe overpronation, as there's an added risk of injury.

Why change shoes?

Generally speaking, a good shoe will last for approximately 900–1100 km of running, depending on the intensity of your training.

In most cases, the midsole will wear out long before the outer sole, losing its protective cushioning properties. When that happens, you may notice new aches or blistering in your legs and feet, or start to feel the irregularities of the ground under your feet.

One way to check for remaining shoe life is to hold each end of the shoe your hands and twist it in opposite directions. If the shoe twists easily, it might be a sign that it's lost its stability, and it's time to replace your favourite runners. ■

For a bit of DIY foot assessment, you can get an idea of your foot type by checking your wet footprints.

CHOICE verdict

Foot type It's important to understand your foot type in order to pick the right pair of running shoes. You can do this most accurately by visiting a podiatrist or a specialist running store. To locate the closest running store in your area, go to australianrunningguide.com.au.

'The best' pair of shoes depends on your foot shape and running style. What works for someone else won't necessarily work for you.

Comfort Shoes should feel immediately comfortable and require no wearing in. There should be about 1–1.5 cm space at the toe end of the shoe, and it should feel snug without being too tight.

Price Most mid-range running shoes (\$150–\$200) will provide you with excellent stability and cushioning properties. The biggest difference you get by investing in a more expensive shoe is extra durability.

Additive angst

Some additives are linked to health issues like asthma, skin rashes, cancer and hyperactivity. CHOICE tells you which ones to avoid.



nutshell

► The less highly processed food you eat, the fewer additives you'll eat too. And if you replace it with fresh food you'll be on your way to a healthier diet.

► We look at the latest research into additives that health questions have been raised about — and give CHOICE's verdict on which ones you'd do best to avoid.

Over three hundred food additives are approved for use in Australia. Reader feedback to CHOICE shows that this use of additives in food is a major concern for consumers. Individuals and consumer advocacy groups have issued warnings about certain food additives, saying they're unsafe and should be avoided. In contrast, the food manufacturing industry and food regulator say there are good reasons to use additives — to prevent food poisoning or extend a food's storage life, for example.

The bottom line is that additives and processed food go together — you rarely get one without the other. The more highly processed foods we eat, the more additives we eat too. So the easiest way to avoid them is to eat mainly fresh and only lightly processed foods (such as canned tomatoes and frozen vegetables).

You can't easily avoid eating additives altogether: even packaged bread often has several. And a small number of additives in their diet isn't a problem for most people.

The safety evidence for food additives is reviewed by Food Standards Australia New Zealand (FSANZ) before they're approved for use. But some people still argue some approved food additives lead to health problems.

Jargonbuster @!?

The function of some key food additives:

Colours (code numbers in the 100 range) add or restore colour to foods.

Preservatives (200 range) help protect against food deterioration caused by micro-organisms.

Antioxidants (300 range) slow or prevent the oxidative deterioration of foods, such as when fats and oils go rancid.

Emulsifiers (mostly in the 400 range) help prevent oil and water mixtures (in mayonnaise, for example) from separating.

Stabilisers (mostly in the 400 range) maintain the uniform dispersal of substances in a food.

Thickeners (including vegetable gums, which have code numbers mostly in the 400 range, and modified starches, with code numbers in the 1000 range) increase the viscosity of food to a desired consistency.

Flavour enhancers (mainly in the 600 range) improve the flavour and/or aroma of food.

Sweeteners (including intense sweeteners in the 900 range, and bulk sweeteners such as sorbitol, 420) impart a sweet taste for fewer kilojoules than sugar.

Additives used to colour food

CONFECTIONERY

INGREDIENTS: COMPOUNDED CHOCOLATE (SUGAR, VEGETABLE FAT, MILK SOLIDS, COCOA, EMULSIFIERS (492, SOYA LECITHIN), SALT, FLAVOUR, NON-PAREN'S (24%), (SUGAR, TAPIOCA STARCH, COLOURS (102, 122, 110, 124, 133)), MADE ON EQUIPMENT THAT ALSO PROCESSES PRODUCTS CONTAINING NUTS. MADE IN AUSTRALIA.



"We nearly always get asthma after eating foods containing additives 621 and 635, so our family avoids them."

Tim and Brady, ACT

Colour cocktail The concern over artificial colours was fuelled recently by a UK government-funded study which concluded that a mixture of colourings and the preservative sodium benzoate (211) could affect children's behaviour. The colours studied were tartrazine (102), quinoline yellow (104), sunset yellow FCF (110), carmoisine (122), ponceau 4R (124) and allura red AC (129). The Food Standards Agency, the UK's food regulator, recently advised that it's recommending to UK ministers that industry takes voluntary action to remove these colours by 2009 and is pressing for action at EU level.

Sunset yellow FCF In the 1980s, the concern centred on tartrazine, an artificial colour that can cause mild allergic-type reactions; sunset yellow FCF can have a similar effect. Some animal studies have indicated sunset yellow can cause

tumours, but the results aren't consistent with other studies on rats and mice.

Erythrosine Two long-term feeding studies demonstrated that erythrosine (127) increases the incidence of thyroid tumours in rats, but a review of these and other available data by JECFA, an international scientific expert committee administered jointly by the Food and Agriculture Organization of the United Nations and the World Health Organization (WHO), concluded the colour is safe. Even so, its use in Australia is restricted to | glacé cherries.

Allura red/brilliant blue Tests have linked allura red AC (129) with cancer in mice but evidence of harm isn't consistent or substantial. Claims that brilliant blue FCF (133) is carcinogenic are largely unsubstantiated.

Natural additives aren't necessarily safer than artificial ones. The natural colouring annatto (160b), for example — typically found in margarine, Cheshire cheese, smoked fish and cakes — can cause reactions in some people.

Additives for preserving food

INGREDIENTS: WATER, SUGAR, RECONSTITUTED ORANGE & PASSIONFRUIT JUICES (5%), FOOD ACID (330), FLAVOUR, PRESERVATIVES (211, 223), COLOURS (102, 110). MADE IN AUSTRALIA FROM IMPORTED AND LOCAL INGREDIENTS.



"I'm concerned about what unnecessary chemicals go into our bodies, so I don't buy or allow my kids to eat anything with additives."

Rachel, Queensland

Soft drinks As noted, sodium benzoate (211) is a preservative that — combined with certain food colours — has been implicated in hyperactivity in children. But that's not all. In drinks, the combination of sodium benzoate or potassium benzoate (212) and ascorbic acid (vitamin C, both naturally occurring and the additive 300) can result in the formation of benzene, a known carcinogen. Heat or light during transport or storage can boost the amount of benzene formed.

FSANZ tested 68 flavoured drinks, including flavoured mineral waters, cordial, fruit juice and fruit drinks, and found 38 of the samples contained trace levels of benzene. While the majority had benzene levels below WHO guidelines for drinking water (10 ppb — parts per billion), a number contained levels of 1 ppb and above — up to 40 ppb. 1 ppb is the reference level for benzene in Australia's more stringent drinking water guidelines.

Additionally, the most recent national diet survey found that young children who have lots of drinks that contain a form of benzoate (non-cola soft drinks, orange juice and cordial, for example) could be exceeding the acceptable daily intake (ADI) for benzoates.

Processed meats The food preservatives sodium nitrite (250) and sodium nitrate (251) — typically found in processed meats — are both listed as "probably carcinogenic to humans" by WHO's International Agency for Research on Cancer, because they can be converted to cancer-causing nitrosamines in the stomach. Nitrosamines can increase the risk of gastric cancer, although this risk is small. In processed foods, however, sodium nitrite and nitrate prevent the growth of bacteria that cause botulism poisoning, which can be deadly.

Bread Calcium propionate (282) prevents mould growth on bread and is most heavily used in humid, tropical areas. It's been linked to migraines and behavioural and learning problems, but reports are anecdotal.

Wine and dried fruit Preservatives that contain sulphur (220–228), including sulphur dioxide (220), which is used in wine and dried fruit, can trigger asthma attacks. The most recent national diet survey found that young children who eat lots of foods that contain sulphites, such as dried apricots, sausages and cordial, could be exceeding the ADI for sulphites. >

Intense sweetener additives

INGREDIENTS: CARBONATED MINERAL WATER, RECONSTITUTED JUICES (ORANGE (3.5%), LEMON (1.5%)) FOOD ACID (330), FLAVOURS, SWEETENERS (952, 951), PRESERVATIVE (211), GREEN TEA EXTRACT, COLOUR (1504). LOW JOULE FRUIT DRINK. CONTAINS PHENYLALANINE. MADE IN AUSTRALIA FROM IMPORTED AND LOCAL INGREDIENTS. FOR BEST BEFORE DATE SEE NECK OF BOTTLE.



"I won't buy anything with MSG (621) as foods that contain it give me a raging migraine."

Daisy, Victoria

Artificial sweeteners can be hundreds of times sweeter than sugar and are typically used in diet and low-sugar foods and drinks. Reports link many of them to cancer.

Saccharin In the 1970s, several studies of rats fed very large amounts of saccharin (954) found its use was associated with a higher incidence of bladder cancer. It was banned in Canada and until 1996 products containing saccharin in the US had to be labelled with a warning. But research in humans largely failed to turn up that risk, and in 2000 the US Government's National Toxicology Program delisted saccharin as a possible carcinogen.

Aspartame Research in 2005 from the European Ramazzini Foundation (updated in 2007) found feeding rats aspartame (951) at simulated doses around levels considered safe for humans increased the rats' risk of leukaemia, lymphoma and breast cancer. Aspartame has also been linked to headaches, allergies and changes in behaviour. But a review of more than 500 studies, including the Ramazzini research, found the claims failed to stand up to rigorous scientific examination, and there was no credible evidence that aspartame is carcinogenic. While many scientists are concerned about the Ramazzini Foundation results, FSANZ and the US food regulatory authority told us they see no reason to alter their position that aspartame is safe.

Cyclamate Another intense sweetener, cyclamate (952), was banned in Canada, the UK and the US over 30 years ago because animal studies indicated links to cancer, but this ban was lifted in the UK in 1996 following further studies. However, another UK survey found some children could be consuming up to twice the ADI for cyclamate. Cyclamate is approved for use in Australia.

Additives for preventing foods from going rancid

INGREDIENTS

CONTAINS WHEAT, SOY, MILK, PEANUTS AND TREE NUTS.
CHOC HAZELNUT DIP: SUGAR, VEGETABLE OIL, SUNFLOWER OIL, PEANUT OIL, HAZELNUT (11%), WHIE POWDER (CONTAINS MILK), COCOA (5%), EMULSIFIER (SOY LECITHIN), ARTIFICIAL FLAVOUR, SALT, BISCUITS: WHEAT FLOUR, SUGAR, MARGARINE (VEGETABLE FATS AND OILS), ANTIOXIDANT (320), WATER, SALT, MILK SOLIDS, EMULSIFIERS (SOY LECITHIN, 471), FLAVOUR, FOOD ACID (330), COLOUR (BETA CAROTENE), VITAMINS A & D, HONEY, DESICCATED COCONUT, WHEAT STARCH, SALT, NATURAL FLAVOUR, RAISING AGENTS (500, 503).
MADE IN A PLANT THAT ALSO PROCESSES PRODUCTS CONTAINING EGG, TREE NUTS, SESAME SEEDS AND PEANUTS.

BHA This antioxidant — butylated hydroxyanisole (320) — is typically found in margarine and spreads, salad dressings, walnuts and pecans, and instant mashed potato. It's listed as "possibly carcinogenic to humans" by WHO's International Agency for Research on Cancer, and some studies have demonstrated that it causes cancer in rats, mice and hamsters. But these cancers are controversial because they occur in the forestomach, an organ that humans don't have.

INGREDIENTS

NOODLES: Wheat flour, vegetable oil (antioxidant (E320)), salt.

FLAVOUR SACHET: Salt, flavour enhancers (E621, E477, E631).

chicken flavour, hydrolysed vegetable protein (soy, wheat), onion powder, sugar, yeast extract, maltodextrin, parsley, herbs, spices, colour (E160b).

VEGETABLE SACHET:

Dehydrated seasonal vegetables.

Flavour enhancers

Flavour enhancers such as glutamates (621–625) are found in many foods, including packet soups, flavoured noodles, sauces and savoury snacks.

People sensitive to monosodium glutamate (621) may have short-term reactions such as headaches, flushing and numbness when they eat foods that contain large amounts of MSG, and some asthmatics may also be susceptible.

UNLABELLED ADDITIVES

You can avoid specific additives in packaged foods by looking at the ingredients list. Additives must be identified by their function, then by their name: for example, preservative (sulphur dioxide); or by their code number: preservative (220). But the fact that either the name or code number is listed means it can be hard to compare which additives are in different products. And there are some exceptions:

- Flavourings** Whether they be natural, nature-identical or artificial, they don't have code numbers and may be labelled simply as 'flavouring' or 'flavour'. According to FSANZ, the vast number of flavouring substances permitted in food means it wouldn't be realistic to require the names to be listed individually.
- Quantity** If an additive is present in an ingredient and that ingredient makes up less than 5% of the complete food product — and the additive isn't considered to perform a technological function in the final food — it doesn't have to be listed.
- Processing aids** These aren't required to be listed, even though traces may be present in the food. Enzymes are an example — they have multiple uses in food production, including pumping up bread loaf volume, assisting with the removal of meat protein from bones and breaking down fruit to release more juice. Ice structuring protein (ISP), a genetically modified fish protein used in ice cream to control the size and growth of ice crystals, is another.

CHOICE wants one clear labelling system for additives so it's easier to avoid them and to compare what's in different foods. Food labelling should also be extended to include all additives, including processing aids, even if they're present in very small amounts.

How additives are regulated

The use of food additives in Australia is governed by the Food Standards Code and regulated by FSANZ. When applying to use a new additive, a manufacturer must provide evidence to FSANZ of its safety, as well as the technological reason for its use. FSANZ reviews the safety evidence before an additive is approved for use and reviews new research as it becomes available, but doesn't undertake safety testing of its own.

In addition, an exposure assessment estimates the likely amount that would be consumed if the food additive was permitted for use. This amount is compared to the acceptable daily intake (ADI) recommended by scientific experts, which is the amount you can consume every day without damaging your health. FSANZ then recommends a maximum level of the food additive permitted in particular foods, based on technological need and providing it's within safe limits. ■



"I'm sensitive to natural food chemicals as well as many additives. To avoid allergic-type reactions I have to choose my foods carefully."

Lisa, Victoria

MARKETING JUMPS ON THE BANDWAGON

Consumer demand for fewer additives has resulted in many manufacturers rethinking the formulation — and marketing — of their products. 'Additive and preservative free' became the number one health claim in the UK food and drinks market in 2006, overtaking 'low fat' for the first time ever, according to a report by market research group Mintel, published late last year.

Some of the major manufacturers riding this wave include:

- **Cadbury** Its Natural Confectionery Company products are free of artificial colours and flavours.
- **Nestlé** It developed its Allen's Naturals confectionery range and reformulated its Uncle Tobys muesli bars to cater to consumers concerned about artificial colours and flavours.
- **Mars UK** It reformulated Skittles to remove artificial colours recently linked to hyperactivity in children.

The emphasis with all of them is that they're free of 'artificial' additives, rather than being additive-free. It's possible products free of artificial additives still contain colours, preservatives or flavours that are derived from natural sources or are 'nature identical' — copies created in a lab — but 'natural' doesn't automatically mean 'safe' (see *Additives used to colour food*, page 29).

And even if a food is completely free of additives, it is doesn't necessarily mean it's good for you or your kids. To help you choose healthier food for your children, go to choicefoodforkids.com.au.



CHOICE verdict

Colours Often overused and generally unnecessary, colours aren't used in processed foods to do anything functional, but purely for looks. In other words, they don't contribute anything useful to the food; they're there for the marketing. And given that they're most often found in foods like cordials, lollies, cakes and soft drinks, which we're recommended to have only as an occasional treat anyway, it's easy enough to avoid colour additives by only eating these foods rarely, if at all. In light of the UK food regulator's decision to push for industry action to remove certain colours by 2009, we'd like to see FSANZ review the situation in Australia. In the meantime, if your child shows signs of hyperactivity, cutting out foods that contain these colours from their diet could help. However, if you think you or your child has an intolerance or allergy to any food or food additive, seek advice from your medical practitioner or dietitian — just cutting out certain foods may not be the answer.

Preservatives Benzene Additional exposure to benzene in food and drink products may be small when compared with breathing air that contains benzene from traffic pollution or tobacco smoke, but it's unnecessary. So it makes sense to avoid drinks that contain benzoates and ascorbic acid. **Nitrites/nitrates** The benefit of adding nitrites and nitrates to food far outweighs the risk they present. Even so, the WHO advises us to "moderate consumption" of preserved meat (including sausages, salami, bacon and ham).

Sulphur dioxide should be avoided by people who have asthma.

Antioxidants While it's considered safe at the low level of use permitted, **BHA** can be replaced in foods by safer chemicals (such as vitamin E), safer processes or simply left out. Check labels if you want to avoid it.

Flavour enhancers For most people **MSG** and other glutamates are harmless. If you're sensitive to MSG, check labels for it.

Artificial sweeteners There's certainly a more substantial risk to your health from being overweight than there is from eating artificially sweetened products. These have often been recommended to aid in weight loss, but a recent study challenged this recommendation by suggesting that people who choose diet drinks containing artificial sweeteners tend to overcompensate and consume more calories than those who don't.

The jury's still out on the absolute safety of artificial sweeteners, so it makes sense to limit your and your children's intake of artificially sweetened foods and drinks. Losing weight without the help of artificial sweeteners would be the win/win situation.

Those who should definitely avoid **aspartame** are people with the rare disorder phenylketonuria, or PKU, who must limit their intake of phenylalanine, an amino acid in aspartame.

Comparing GreenPower

Switching to 100% GreenPower means you pay more to support investment in renewable energy. But there are still big differences in price between products from different companies — for essentially the same thing. CHOICE compares what's on offer.



▶ Kurt van Wijck and his family switched to 100% GreenPower, finding the extra dollar a day or less a small price to pay to help the planet.

nutshell

▶ Buyer beware: the most expensive companies charge almost double the cheapest ones for 100% accredited GreenPower.

▶ GreenPower is new renewable energy. Buying it means redirecting your money from polluting coal-fired electricity. However, some offers are greener than others — they range from 10% GreenPower to 100%.

The van Wijcks from Victoria switched to GreenPower (the government-regulated renewable energy scheme) about four years ago, choosing TRUENERGY's 100% accredited wind power. According to Kurt van Wijck, "The company was one of the few that offered 100% accredited wind energy for residential customers at the time. It was also our electricity supplier so we didn't have to switch." The family pays about \$60 extra per quarterly bill, which they think is well worth the price. "I believe our planet is in great distress and if I can reduce our footprint considerably for less than one dollar per day, that's a very low price to pay."

If you're also keen to reduce your environmental footprint, you'll be pleased to hear that since CHOICE last compared providers of GreenPower in the June 2007 issue, there have been several positive developments in the GreenPower market for consumers.

There's more choice At least seven new companies offer GreenPower to residential customers. New entrants include AUSTRALIAN CO₂ EXCHANGE, COZERO and RED ENERGY, which previously only offered unaccredited hydro energy from the Snowy Hydro scheme but plans to

offer accredited GreenPower in 2008. INTERNATIONAL POWER now sells under the name SIMPLY ENERGY in Victoria and SA.

Shonky claims addressed The Australian Competition and Consumer Commission (ACCC) investigated several companies' environmental marketing claims. Two of the biggest retailers — ENERGYAUSTRALIA and ORIGIN — had their knuckles rapped over some of their GreenPower advertising.

There are big price differences and a wide range in the environmental benefits of renewable energy offers. The most expensive companies charge the average household close to double what the cheapest companies charge for 100% GreenPower. And accredited products on offer range from 10% to 100% of your household's electricity use.

For this year's CHOICE price comparison of GreenPower, we've concentrated on the most effective option: 100% GreenPower. The table on page 36 compares 100% accredited products by price for the average household. You can usually buy a smaller proportion of GreenPower for a lower price, and some retailers offer 10% GreenPower for no extra cost above regulated electricity rates.

Best prices

These are the lowest prices for 100% GreenPower for an average household's annual electricity consumption. This is in addition to your supplier's standard electricity rates; for the full cost you need to subtract any discounts that retailers offer.

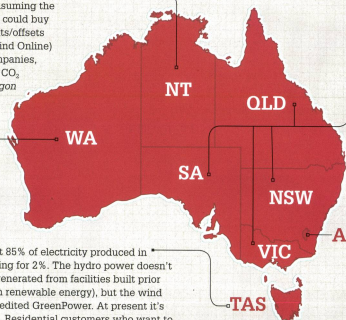
The NT doesn't participate in the GreenPower scheme. However, a household consuming the national average level of electricity could buy 100% accredited GreenPower credits/offsets from Origin Energy (GreenEarth Wind Online) for \$324 per year, or from other companies, such as ActewAGL and Australian CO₂ Exchange, for a little more. See *Jargon buster*, page 35, for an explanation of GreenPower credits or offsets.

Synergy charges 4.4 cents per kWh, or \$285 per year, which is nearly a 50% price increase since our June 2007 report, but still the cheapest for WA households.

Hydro power makes up about 85% of electricity produced in Tasmania, with wind power accounting for 2%. The hydro power doesn't qualify as GreenPower because it's generated from facilities built prior to 1997 (and so isn't an investment in renewable energy), but the wind energy ('Aurora Green') is 100% accredited GreenPower. At present it's only available to business customers. Residential customers who want to buy GreenPower could buy offsets from Origin and others.

JackGreen Power charges \$229 per year, or \$4.40 per week, for 100% GreenPower, irrespective of how much electricity you use. JackGreen is easily the cheapest deal for high-consumption households. In addition, consumers in Victoria get an additional 5% discount on regulated electricity rates if they pay their bills on time.

Country Energy charges \$312 per year for a block of 6470 kWh of GreenPower.



For low-consumption and high-consumption households the table on page 36 gives an indication of the best GreenPower prices for households using 3500 kWh/year and 8500 kWh/year of electricity respectively.

Did you know?

What is GreenPower? It's the government program that accredits, polices and audits green electricity in Australia. It ensures that the amount of GreenPower sold to households and businesses is matched by the purchase of renewable energy certificates from electricity generators. Only energy that comes from genuinely renewable sources built after 1997 (to support and create investment in new renewable energy), and approved by the government scheme, can be sold under the brand name GreenPower.

Electricity that's fed into most of our homes comes from the national electricity grid, which gets its power from generators of both 'green' and 'black' electricity. At present, the mandatory amount of renewable (green) energy that must be fed into the grid each year is pretty low — about 2–3%. That doesn't include additional GreenPower sales, which is where you can make a contribution.

When you buy a percentage of accredited GreenPower, that percentage of the electricity you use is replaced in the grid by energy from new renewable sources. So you're increasing the proportion of green energy in the grid.

Buying GreenPower doesn't mean different electricity will flow into your home (you won't have 'green' electrons powering your toaster or TV), but with accredited products you're assured by the state governments running the initiative that the energy you use will be replaced in the grid by clean renewable energy, rather than energy from 'black' sources, such as coal. You'll also be supporting investment in new renewable energy generators.

20% renewable energy by 2020

The new Federal Government increased the targets for renewable energy production in Australia. The mandatory target is 20% of all Australian electricity produced from renewable energy by 2020. At last count (2006 data), 9.4% comes from renewables, but of that the largest source (7%) is from large hydro schemes, some of which have contributed to our energy mix for decades. The remainder of our energy (90%) is from fossil fuels.

At present, only about 2.4% of our electricity comes from new solar and wind power generators, and other accredited renewable sources such as biomass (see *Jargon buster*, page 35). Wind power generation is expected to increase significantly over the next decade to meet the increased demand for clean energy.

Household and business purchases of GreenPower are in addition to the mandatory targets. So in 12 years, 20% of the electricity we use will be from renewable sources, whether individuals make a choice or not. By buying GreenPower, we can increase the amount of renewable energy production in Australia above those mandatory targets. >

On average, cutting your power use by 20% would save about \$200 per year, which could pay for the extra cost of switching to 100% Green Power.

< What's the source?

The source of the renewable energy affects its price — solar power is generally the most expensive. A few companies give you the choice of the source you'd like, such as ORIGIN, which offers wind and solar options. The table details each product's source.

The GreenPower scheme is 'technology neutral'; no particular type of energy is considered better than another, as long as it's from new, renewable sources that meet the scheme's requirements. This excludes energy from large-scale hydro schemes, which may have detrimental environmental impacts, and schemes that existed before the cutoff date of January 1997, because investment in those generators doesn't drive investment in new renewable energy.

The main sources of renewable energy at present are biomass (see *Jargon buster*, far right), hydro, wind and the sun.

There's plenty of debate and opinion about what's the 'best' or most environmentally friendly form of GreenPower. Some of this is subjective; you may prefer the aesthetics of solar panels over wind farms, for example. And some of the debate is scientific — over which types of renewable energy generators have the lowest environmental impact over their lifetime, including the energy used in the manufacture of generators.

A report for the UK Government suggests that the lifecycle emissions from the generation of solar power are high compared with other renewable sources. But BP Global, the largest producer of solar panels in Australia, says it takes between one and four years for a solar system to 'pay back' the energy that was used for its production.

Sources of renewable energy include:

Hydro



Wind



Sun



Professor Martin Green of the University of NSW, a recognised expert in solar power, says that if solar energy were used instead of conventional energy for the manufacture of solar panels, the resulting emissions would be negligible.

You can read more about the various types of renewable energy accredited under the government scheme, as well as the particular wind farms and other generators the retailers source their power from, at www.greenpower.gov.au.

Energy efficiency first

You can make a good contribution to the environment by switching to GreenPower, but it's only one step. A big problem is households' electricity consumption levels, which are increasing at about 2% per year as we choose bigger TVs and increasingly buy air conditioners and other appliances. If the average household cut its electricity use by 20%, it'd save around \$200 per year on electricity bills. You could use that money to pay for most of the extra cost of switching to 100% GreenPower. So not only would you have reduced your electricity consumption, you'd be supporting new renewable energy too.

For tips on being more energy-efficient around the home, check out *Going carbon neutral* in the November 2007 edition of CHOICE or go to choice.com.au. >

MORE INFORMATION

Australian Conservation Foundation acfonline.org.au.

GreenPower scheme greenpower.gov.au.

Green Electricity Watch greenelectricitywatch.org.au. This is a 2007 report that ranks electricity products and companies, taking into account their marketing, how they drive investment in and the take-up of renewable energy, their products and prices. It's from the environmental groups Australian Conservation Foundation, Total Environment Centre (TEC) and WWF. According to the TEC, if you want to buy a GreenPower product that has the best impact on the generation of new renewable energy in Australia, choose a product that gets four stars on the website. While not all the new products CHOICE features were included in the last Green Electricity Watch report, Origin's 100% GreenPower products got top marks. Also achieving four stars were: ActewAGL, Climate Friendly, COZero, EnergyAustralia and Integral. Jackgreen, the cheapest provider in our comparison, achieved three stars; changes and improvements it's made since the 2007 analysis mean it's likely to do better in the next Green Electricity Watch report.

GREENPOWER FAQs

- Do I have to switch electricity providers to get GreenPower?** Most electricity retailers offer a GreenPower option, so you don't necessarily have to switch provider. Another way to buy GreenPower without switching supplier is to purchase it from a company that sells accredited GreenPower credits (see *Jargon buster*, right) — those offering 100% GreenPower credits are listed in the table.
- What about discounts?** Electricity retailers often offer a discount on government-regulated prices for 'ordinary' electricity, such as 5–8% per year. Sometimes they offer a portion of GreenPower instead of a discount, with offers such as '10% GreenPower at no extra cost'. To get the absolute best deal on price, weigh up the benefit of various discounts being offered — if you have the time to compare all the offers.
- Is there enough GreenPower to meet demand?** According to the Total Environment Centre (TEC), there's enough GreenPower at present to meet business and household demand. TEC thinks Australia's renewable energy production can go far beyond the 20% target in due course. However, the production of GreenPower needs to be stepped up considerably as the new mandatory target of 20% renewable energy by the year 2020 approaches.
- What are the most common types of renewable energy used for GreenPower?** According to the scheme's last annual audit report (2006), wind accounted for 58.6%, biomass 28.4% and hydro power 12.7%. Solar power made up just 0.3% of Australia's new renewable energy generation.
- Nuclear energy doesn't produce greenhouse gases, so could it be included?** According to the GreenPower scheme, in order to become accredited, energy generators must demonstrate that they don't produce any hazardous waste, as well as generating energy without producing greenhouse gas emissions. "Nuclear energy generators produce radioactive waste that remains toxic for millions of years, so wouldn't meet GreenPower's stringent environmental criteria," the GreenPower website says.

724,506 The number of Australian households and businesses that had signed up to GreenPower by the end of 2007. 696,000 of those customers are households.

Jargonbuster @!?

Biomass Energy from organically based sources. Biomass generators used within the GreenPower program include landfill gas (see below), sewage gas and heat produced by burning agricultural waste such as bagasse (a by-product of sugar production).

Global warming Greenhouse pollution (gases such as carbon dioxide and methane) builds up in the lower atmosphere and prevents heat escaping into space. This increases the planet's average temperature.

GreenPower Renewable energy from new sources built after 1 January 1997, bought by energy suppliers on behalf of their customers and independently audited and verified by the National GreenPower Accreditation Steering Group, which has representatives from the governments of the ACT, NSW, Queensland, SA, Victoria and WA.



GreenPower credits/offsets Some companies buy GreenPower credits (otherwise known as offsets) on your behalf, while you remain with your current electricity supplier and pay your usual bill. They're marked with footnote (A) in the table on page 36.

Kilowatt hour (kWh) The standard measure of electricity that appears on your bill. One kWh is equal to 3.6 megajoules (MJ); megajoules are the standard energy measure for gas.

Landfill gas Organic matter, for example in rubbish tips, breaks down to produce methane gas. Capturing and burning this methane enables generation of energy, and prevents methane escaping into the atmosphere, where it would produce 21 times more greenhouse pollution than carbon dioxide.



Percentage of GreenPower The amount of GreenPower being purchased, expressed as a percentage of household electricity consumption — either of your household, or the average Australian household (6470 kWh).

Renewable energy Energy from sources that can't be depleted or that can be replaced. Once built, clean, renewable sources don't produce greenhouse pollution; they include solar, wind, biomass, wave and hydro sources.

Most electricity retailers offer a GreenPower option, so you don't necessarily have to switch providers.

100% ACCREDITED GREENPOWER PRODUCTS

Retailer (in order of average household price)	Product	States available	Price: Average household, 6470 kWh/year, except Ergon Energy (\$ / year)	Price: Low-consumption household, 3500 kWh/year (\$ / year)	Price: High-consumption household, 8500 kWh/year (\$ / year)	Pricing basis
JackGreen	JackGreenPower	NSW, Qld, SA, Vic	229	229	229	\$4.40 / week
Integral Energy	INgreen Pure	NSW, Qld	285	154	374	4.4 cents / kWh
Synergy	NaturalPower	WA	285	154	374	4.4 cents / kWh
Simply Energy	Simply Green Premium	SA, Vic	286	286	286	\$5.50 / week
Australian Power & Gas	Greentricity 100	Vic	312 (B)	312 (B)	312 (B)	\$6 / week (B)
Country Energy	foreverGREEN	ACT, NSW, Qld, SA, Vic	312	312 (D)	312 (D)	\$312 / 6470 kWh
Origin	GreenEarth Wind	NSW, Qld, SA, Vic	324	175	425	5 cents / kWh
Origin (A)	GreenEarth Wind Online	All	324	175	425	5 cents / kWh
TRUenergy	Wind Power	ACT, NSW, Qld, SA, Vic	347	188	456	5.37 cents / kWh
ActewAGL	Greenchoice 100% Wind	ACT, NSW	356	193	468	5.5 cents / kWh
AGL Energy	Green Energy	NSW, Qld, SA, Vic	356	193	468	5.5 cents / kWh
Queensland Electricity	Premium Green	Qld	377	204	496	5.83 cents / kWh
South Australia Electricity	Premium Green	SA	377	204	496	5.83 cents / kWh
Victoria Electricity	Premium Green	Vic	377	204	496	5.83 cents / kWh
COzero (A)	COzero GreenPower	All	388	210	510	6 cents / kWh
GreenSwitch (A)	GreenSwitch Mix	All	388	210	510	6 cents / kWh
Australian CO ₂ Exchange (A)	Ark Climate GreenPower	All	391	212	514	6.05 cents / kWh
Momentum Energy	100% Accredited Green Power	SA, Vic	391	391 (D)	391 (D)	\$391 / 6470 kWh
Neighbourhood Energy	GreenLight	Vic	391	212	514	6.05 cents / kWh
Origin	GreenEarth Solar	NSW, Qld, SA, Vic	397	215	521	6.13 cents / kWh
Climate Friendly (A)	Climate Neutral Emerald	All	423	229	556	6.55 cents / kWh
Integral Energy	INgreen Future	NSW	427	231	561	6.6 cents / kWh
EnergyAustralia	PureEnergy Premium	ACT, NSW, Qld	436	436	436	\$108.90 / qtr
Ergon Energy	Clean Energy	Qld (regional areas)	480 (C)	480 (C)	480 (C)	\$120 / 2000 kWh / qtr

USING THE TABLE

The table profiles all 100% accredited GreenPower offers. They're listed in order of lowest to highest annual cost (including GST, and on top of the standard regulated electricity tariffs that the average Australian household would pay — around 15 cents per kWh for most consumers). The national average is 6470 kWh/year; consumption varies among states and territories.

We also show premiums for households with lower (3500 kWh/year) and higher (8500 kWh/year) consumption, so you can check which price is most relevant to you.

Pricing basis Retailers charge:

- A fixed price (such as \$5 per week), irrespective of your electricity consumption.
- A price based on consumption (such as 4.4 cents per kilowatt hour (kWh), or
- A price based on buying one or more 'blocks' of GreenPower (such as \$312 for 6470 kWh). You can't buy a portion of a block, so a block may be more or less than you need to be on 100% GreenPower.

Your household usage pattern can mean one kind of pricing is better value for you than another. For example, if you have high electricity consumption relative to the average, a fixed price could well work out best for you. If your electricity use is lower, a consumption-based plan will often be cheaper, where the GreenPower price you pay is based only on the electricity you use.

Comparative price This column shows the premium each company charges the average household for the GreenPower component, expressed in cents per kWh. It tells you the product's comparative value for money.

The main sources of renewable energy at present are biomass, hydro, wind and the sun.

Company price (cents/kWh, average household)	Early termination fee	Source of energy	Phone	Website (all www.)
54	\$49 (E)	Wind	1300 46 5225	jackgreen.com.au
40	\$95 in first 3 years	Various accredited sources	NSW: 131 002; Qld: 133 753	integral.com.au
40		1% solar, 99% wind	13 13 53	synergy.net.au
40		Wind	13 88 08	simplyenergy.com.au
82	\$30 in first 3 years	Biomass, new hydro, solar, wind	133 298	australianpowerandgas.com.au
82		0.3% solar, 24.7% biomass, 75% wind	13 23 56	countryenergy.com.au/green
00		Wind	132 463	originenergy.com.au
00		Wind	132 463	originenergy.com.au
37		Wind	133 466	truenenergy.com.au
50		2006: 73% wind, 25% landfill gas, 2% hydro	13 14 93	greenchoice.net.au
50		Wind, landfill gas, biogas and bagasse	131 245	agl.com.au/green
83	\$75 in first 2 years	Landfill gas	1300 728 325	queenslandelectricity.com.au
83	\$75 in first 2 years	Landfill gas	1300 360 294	southaustraliaelectricity.com.au
83	\$20 in first 2 years	Landfill gas	1300 130 824	victoriaelectricity.com.au
00		90% wind, 10% solar	1300 236 388	cozero.com.au
00		Biomass, hydro, wind, solar or a mix (F)	03 9822 6335	greenswitch.com
05		Wind	03 9682 4200	arkclimate.com
05	\$100 in first year	Wind	1300 662 778	momentumenergy.com.au
05		Mini hydro, landfill gas, wind, solar	1300 764 860	neighbourhood.com.au
13		Solar	132 463	originenergy.com.au
55		Wind	02 9356 3600	climatefriendly.com
60		Various accredited sources	131 002	integral.com.au
73		0.2% solar, 68.8% wind, 5% hydro, 26% biomass	13 15 35	energy.com.au
00		20% biomass, 30% hydro, 50% wind	13 10 46	ergon.com.au

TABLE NOTES

Prices were correct at 1 April 2008.

(A) With this offer, the company doesn't supply electricity to your home, but sells accredited GreenPower credits/offsets. These prices change regularly, so check the companies' websites. With credits/offsets you can continue with your current electricity retailer for your electricity supply.

(B) \$3 per week (\$156 per year) if you also have gas with the company.

(C) Sold in blocks of 2000 kWh per quarter (8000 kWh/year), the average electricity consumption in regional Queensland. That's higher than the national average electricity consumption, and more than our average and low-consumption examples use.

(D) Sold in blocks of 6470 kWh; that's more than the low-consumption household uses. For the high-consumption household, only the first 6470 kWh are accredited.

(E) In the first two years in Queensland, and in all states a \$49 termination fee applies if notice isn't in writing.

(F) The price shown is for a mix.

Does your home need a safety net?

Pornography, violence and hate groups can appear on your home computer without your permission. CHOICE tested 15 net filtering packages, to find out if they're worth having.



nutshell

► Don't fork out for a commercial filter package — you can get a good one free from NetAlert.
► Filters can mistakenly filter out safe content and sites, and are no substitute for parental supervision.

The internet is a wonderful information-gathering tool, but it has a dark side. So how do we protect ourselves — and our children — from pornography, violence and other net nasties?

The software tools we use to shield our computers against viruses, spyware and spam are no help against undesirable content that just shows up onscreen in your web browser. That's where net filtering software (often called 'net nannies') comes in.

Internet filtering software helps block out unwanted content such as pornography, violence, hate groups and other unwanted text and pictures, all of which can appear on your screen without permission.

It's a hot topic, especially since the Federal Government announced its controversial plans to make internet service providers (ISPs) supply blanket protection for all Australians this year (see *What's the government doing?*, page 40).

Regardless of what your ISP does, you can install net filtering software on your computer, but is your teenager really safe to browse the web unsupervised with one of these programs in place?

HOW WE TESTED

The programs CHOICE tested 15 net filtering programs to see which ones do the best job, including all five filters recommended by the government in its National Filter Scheme. We also tested five best-selling commercial packages and five popular freeware programs for comparison.

Filtering out undesirable content As well as testing whether they can stop undesirable words and images from popping up onscreen, we also checked whether the programs could stop undesirable content in:

- Email.
- Instant messaging.
- File downloads.
- Removable media (such as a USB key or external hard drive).

Speed and ease of use Finally, we took note if any of the programs noticeably slowed the computer, how easy they were to use and which features, options and settings were included in the package. If a program is hard to use or affects speed, you're less likely to use it.

What our testing found

There wasn't a lot to separate the top six products tested (see *What to buy*, below right) — any of these filter programs will do a good job of screening out net nasties even if just installed using their default settings. Don't expect them to be perfect, though — all the programs we tested will perform even better over time if 'trained' by the user manually approving or disapproving content that slips through.

Of the 15 filters tested, the top six comprised two commercial (NETNANNY and CYBERPATROL), three government-supplied (INTEGARD, SAFE EYES FOR MAC and OPNET Web Filter) plus one freeware filter (PARENTALCONTROL Bar).

Note that, though the government-supplied filter programs provided for download by NetAlert are effectively free to Australian users, they're in fact fully featured commercial programs that have been chosen by the Australian government's National Filter Scheme, which is picking up the tab.

If you live in Australia and navigate to the manufacturer's website to buy the product, you may be redirected to the Australian NetAlert website (netalert.gov.au) where the product can be downloaded or sent to you on disc free of charge. This site also provides information about each filter program and a comparison table detailing features.

Freeware, on the other hand, isn't meant to be sold. It's given away free by the author, usually via download. It sometimes contains built-in advertising and usually doesn't come with technical support or other help. The five freeware programs we tested were chosen based on popularity searches at the major online file library websites: download.com, softpedia.com and Tucows.com.

What can they do?

Porn's the easiest to stop Our tests showed all 15 filters tested were effective at blocking pornography — 13 blocked 90% or more. Terrorist-type material was a weak point across the board, with all scoring 53% or less.

Web protection only Good net filters can help protect you from offensive content detected live online, but do nothing to protect you from offensive material on local devices, such as a USB key.

Browser support Two filters — WE-BLOCKER and NETNANNY 5 — didn't work with the popular Firefox web browser. If you use Firefox, don't choose one of these filters.

Protecting more than one PC What if you have more than one computer — can the same piece of software legally be installed on all of them? Only one of the top six programs, INTEGARD, was licensed to allow installation on more than one computer, along with two others outside

the top six — NETMOP and FILTERPAK. Each comes with three licences. The other free government filters can be installed on multiple computers, but you need to supply a different email address each time during installation.

NETNANNY 5, CYBERSITTER, CYBERPATROL and CYBER SENTINEL (all commercial products) require you to buy an extra copy for each computer.

Take a two-pronged approach

Net filtering is only part of the overall security picture for your computer. We strongly recommend you install and use good-quality security software as well, for controlling viruses, spyware and spam. You can do this with individual packages or install a security suite (search for 'security suites' on choice.com.au, or see *CHOICE Computer's* recent security suites roundup).

Note that if you choose a security suite, it may include a net filtering program as part of the package. Eight of the nine security suites in *CHOICE Computer's* most recent test included content filtering and six included instant messaging protection.

Whichever you choose, don't install more than one filtering package, as it will likely cause software conflicts, possibly slowing it down, causing system crashes, or just not working properly. >

Jargonbuster @*!?

Firewall A software program and/or hardware device that limits outside network access to a computer or local network by blocking or restricting access to your computer.

Spam Unsolicited commercial (junk) email distributed on a large scale and often as part of a scam.

Spyware Software that secretly gathers information from a computer about a user or organisation.

Virus A software program, script, or macro that has been designed to infect, destroy, modify or cause other problems with a computer or software program.

Whitelist A list of websites that have been specifically approved as suitable for access.

What to buy \$

NetNanny 5	US\$39.99 (www.netnanny.com)
Integard	Free (www.netalert.gov.au)
ParentalControl Bar	Free (www.parentalcontrolbar.org)
CyberPatrol	US\$39.99 (www.cyberpatrol.com)
Safe Eyes for Mac	Free (www.netalert.gov.au)
Opnet Web Filter	Free (www.netalert.gov.au)

Listed in rank order

All the programs will perform better if 'trained' by the user what to do with content that initially slips through the filter.

Simply blocking improper content from your home computer does little to help teenagers learn how to deal with it when they find it elsewhere.

< Stop others beating the system

Security software can only be effective if computer users can't bypass it. If your children can use your PC's administrator-level access privileges, they may be able to bypass or disable it. Make sure you use a 'strong' password and keep it safe so it can't be found by children. A strong password should be at least seven characters long and contain letters, numbers and symbols. It should be quite different from your other passwords, not contain your name or user name and not be a common word or name — and don't pick your kids' names, either.

To check if a password you've chosen is strong enough, you can use Microsoft's online password checker. Go to microsoft.com.au and search for 'strong password'.

If you can't think of a good password, you can have one created for you at strongpasswordgenerator.com. And, of course, once you have a strong password, don't write it down and leave it where it can be found.

Family focus

Net filters for your PC give you a way to help ensure your family only views content that you want them to. Net filtering can help prevent them being exposed to unwanted internet material, especially pornography. It can be especially effective if you have young children.

But for many, the issue will be more complex than just which package to install. Parents of older children may want to consider whether they install it at all. Simply blocking improper content from your home computer does little to help educate teenagers about what they may come across on the internet elsewhere and how to deal with it. Consider their age and computer experience and your own moral stance before deciding whether to install a net filter package and how strict you make the settings.

As children grow older and more sophisticated about the use of computers and the internet, a heavy-handed 'big brother' approach of spying on and controlling online activities may work against building communication and trust between parents and children. ■

WHAT'S THE GOVERNMENT DOING?

The net filters provided free to Australian residents and libraries are funded by the Federal Government's \$85 million National Filter Scheme — part of the \$189 million NetAlert program introduced last year, which includes a variety of activities to help protect families online. NetAlert is managed by the Department of Broadband, Communications and the Digital Economy — dbcde.gov.au.

The NetAlert initiative includes a website (netalert.gov.au) and national telephone helpline (1800 880 176) that provide advice about protecting children online. NetAlert also has an outreach and research program, which is managed by the Australian Communications and Media Authority (ACMA). And the NetAlert site has free downloadable PDF versions of its internet safety booklets for parents, librarians and teachers.

You can find out how to complain about particular internet content or report inappropriate or illegal internet activity via acma.gov.au. ACMA also has a net safety online education website called Cybersmart Kids Online (cybersmartkids.com.au).

CONTROVERSIAL GOVERNMENT PLAN

The Federal Government has announced plans to impose mandatory net filtering at ISP level, which would block access to undesirable content using a website 'blacklist' maintained by ACMA.

The controversial plan has met with opposition, with claims that it won't be effective and could slow down net access for everyone, incorrectly block legitimate content, result in extra costs being passed down to consumers, expose ISPs to legal liability and affect civil liberties.

Organisations expressing opposition to the plan include the Internet Industry Association, the Australian Privacy Foundation and Electronic Frontiers Australia.

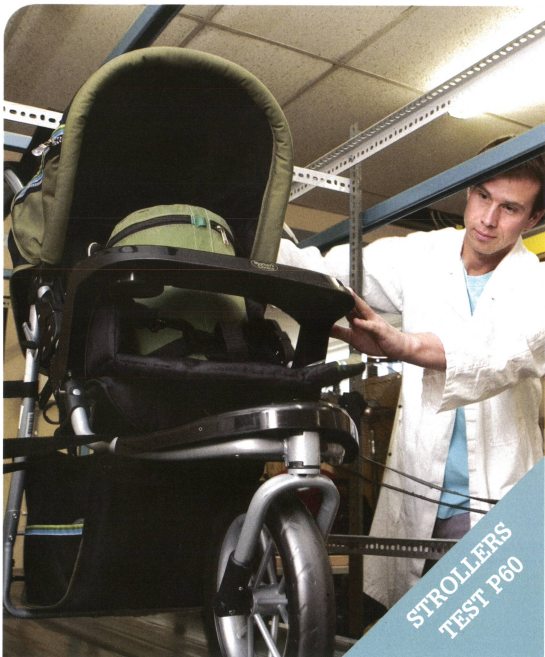
CHOICE verdict

Despite the fact that the commercial program NETNANNY came top in our *What to buy* list, there's not much to pick between any of the top six programs overall. You might as well go for one of the free government-provided packages — INTEGRAD or OPTENET Web Filter for Windows PCs or SAFE EYES for Mac. They come with the features and support you'd expect of a commercial program.

We strongly advise also running a quality security suite to minimise the risk of exposure to other net nasties. Remember, though, no net filtering system is foolproof. There's still no substitute for parental supervision while kids are online. Software can help reduce the chances of undesirable content being seen, but it needs to be part of an overall online safety strategy.

On test

Home entertainment,
whitegoods, household
and personal appliances
— they're all tested here.



STROLLERS
TEST P60

Inside

42 **Fridges**



48 **Gas heaters**



52 **Slow cookers**



Plus

56 **Small
stepladders**

CHOICE has its own testing laboratories, where experienced technical staff put products through their paces. We use test methods from Australian standards, as well as developing our own in order to match the way consumers use a product in reality. We buy most of the products we test, to maintain our independence from manufacturers and so that we know what you're faced with in the shops. Our recommendations are based on a product's quality and performance, with no hidden bias.

For more product tests go to choice.com.au



How green is your fridge?

Manufacturers are designing fridges to use less energy and become a greener product.

nutshell

► These days, fridges use around 25% less energy than they did before the introduction of the new Minimum Energy Performance Standard (MEPS) in 2005.

► MITSUBISHI's energy-saving techniques include not maintaining set temperatures and would be unacceptable under the latest fridge standard.

Thanks to the 2005 Minimum Energy Performance Standard (MEPS), new fridges use around 25% less energy than they did previously, which is great news for the environment and your electricity bill. However, energy efficiency is only part of the energy equation. In order to find a fridge that also does what it's meant to do — maintain the optimal environment for both fresh and frozen food — you'll need CHOICE tests.

We tested 11 new fridges and slotted them into their rightful place among the previously tested models. The good news is that we finally found a small fridge with good temperature performance. The WHIRLPOOL WRI27SW, which is also very energy-efficient, scored 74% overall. However, four other newly tested models performed relatively poorly in our tests.

Refrigerants and blowing agents

Energy efficiency aside, in order for a fridge to be environmentally friendly, it should contain gases that won't contribute to ozone depletion or global warming. Gases inside a fridge are used as refrigerant (part of the cooling mechanism), and for blowing (making air bubbles in and distributing) the insulation, which keeps the compartments cool.

In the past, fridges and freezers used chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) as refrigerants and blowing gases, both of which are ozone-

depleting gases. CFCs aren't allowed in modern fridges, and while HCFCs aren't scheduled to be phased out till 2020, it's now uncommon to find them in fridges on the Australian market. (In this test, though, the WHIRLPOOL WRI27SW used one as a blowing gas.) Manufacturers are predominantly using the hydrofluorocarbon (HFC) refrigerant R134a. HFCs don't deplete the ozone layer but are still active greenhouse gases.

A more environmentally sound refrigerant used by some manufacturers is R600a, a hydrocarbon (HC). The models with this refrigerant tend to be European and are generally more expensive to buy. The European market more commonly uses HCs, but they're not approved for use in the US. HCs are flammable and therefore carry a small safety risk. In this test, the LIEBHERR CTNesf4613 uses R600a. However, it isn't a recommended model due to a poor temperature score. It's also a lot more expensive than the models in the *What to buy* list.

To make any impact on greenhouse emissions over time, however, the most important aspect is the fridge's energy efficiency, rather than the type of refrigerant/blowing gas used. But if you want to check which refrigerant your fridge uses, all models have this information on the fridge specification plate in the cabinet.

Recycling your old fridge

If you're upgrading to a sleek new model, what do you do with your old fridge? While it might be tempting to keep it in the garage to store cold drinks, it could be costing you \$130 a year more than a new fridge to run — and producing an extra tonne of greenhouse gas emissions. If your old fridge is over 15–20 years old, it may also contain ozone-depleting refrigerant (CFCs), which can leak out.

If your fridge is still in relatively good condition, contact your local Salvation Army or similar charity, which can send it to a good home. If it's not, contact your local council or the Australian Refrigeration Council (1300 884 483) to find out about any local recovery schemes. The refrigerant will need to be recovered and recycled by an appropriately licensed person. You can also go to the Planet Ark/Sensis recycling website at www.recyclingnearyou.com.au and look under 'white goods'. >

MITSUBISHI WARMS UP TO SAVE ENERGY

The 385 L MITSUBISHI MR-38ST performed so poorly that we weren't able to rate it meaningfully. Our testers found the freezer and fresh-food temperatures can warm significantly after a defrost cycle, and in one test conducted in 32°C external temperature, the average temperature in the freezer warmed by 4°C and remained that way for around eight hours. To maintain food safety and quality of frozen food, a freezer needs to stay at or near a temperature of -18°C.

In November 2005, CHOICE reported on the MITSUBISHI ELECTRIC MR-CU375P and found that it too ran warmer than its set temperature for many hours. It did this to save energy.

The manufacturer told us the latest model we tested meets the Australian standard under which it's registered, though we found it would be unacceptable under the latest fridge standard (which is yet to be made mandatory). Other fridges in this test were very energy-efficient without compromising the quality of stored food.

New profiles

Newly tested models in the *What to buy* list are profiled here. For profiles of the other models in the list see CHOICE, November 2007, May 2007, November 2006, May 2006, November 2005, May 2005, November 2004 and May 2003. You'll also find them in the appropriate month under 'Fridges' in the index at choiceextra.com.au.

Less than 300 L



WHIRLPOOL WRI27SW

PRICE \$759

GOOD POINTS

- Good temperature range.
- Maintains a very steady temperature.
- Very good crisper humidity.
- Available with right- or left-opening doors, which can be reversed.

BAD POINTS

- Only scored 58% for fresh-food cooling speed.
- Setting the appropriate temperatures is trial and error and the freezer temperature is very warm on the 'mid' setting.
- The freezer can get much too warm in winter unless the controls are reset.
- The controls aren't easy to use.
- The chiller compartment is much too warm for best storage of highly perishable foods.

451-525 L



ELECTROLUX EBM5107SA

PRICE \$2500

GOOD POINTS

- Very energy-efficient.
- Very good temperature range.
- Good temperature uniformity.
- Maintains steady temperatures.
- Available with left- or right-opening doors.
- The freezer can be set very cold.

BAD POINTS

- Only scored 58% for fresh-food cooling.
- Setting the appropriate temperatures is trial and error.
- The fresh-food compartment can get cooler in winter unless the controls are reset.
- The controls aren't easy to use.
- No chiller compartment.

Side-by-side



ELECTROLUX ESE6108WA

PRICE \$2100

GOOD POINTS

- Quite good fresh-food cooling speed.
- Good temperature range.
- Electronic controls are easy to use.
- Handles seasonal change well.
- Good at maintaining steady temperatures as the compressor starts and stops.
- Good storage versatility.
- Alarms for fresh-food compartment door and freezer temperature.

BAD POINTS

- Controls don't allow very fine temperature adjustment.
- No chiller compartment.

What to buy

LESS THAN 300 L

NEW WHIRLPOOL WRI27SW (T) **BEST BUY** \$759

300-375 L

FISHER & PAYKEL Elegance E372B (B) **BEST BUY** \$1449FISHER & PAYKEL Tasman E331T (T) **BEST BUY** \$1019

WESTINGHOUSE RJ362V (T) \$1059

376-450 L

WESTINGHOUSE Virtuoso RJ423V (T) **BEST BUY** \$1749FISHER & PAYKEL Tasman E381T (T) **BEST BUY** \$1179

FISHER & PAYKEL Elegance E440T (T) \$1536

WESTINGHOUSE Virtuoso RJ393V (T) \$1369

FISHER & PAYKEL Tasman E442B (B) \$1705

451-525 L

WESTINGHOUSE Virtuoso RJ525V (T) **BEST BUY** \$1799FISHER & PAYKEL Elegance E521T (T) **BEST BUY** \$1833

NEW ELECTROLUX EBM5107SA (B) \$2500

ELECTROLUX EBM5100WB (B) \$1749

MORE THAN 525 L

FISHER & PAYKEL RF610A \$3699

SAMSUNG Cool Tech Plus SRL550DW (B) **BEST BUY** \$1899

GE GBU20KBRWW (B) \$3999

SIDE-BY-SIDE

WESTINGHOUSE WSE6100WA **BEST BUY** \$1899

NEW ELECTROLUX ESE6108WA \$2100

PIGEON PAIR

MIELE F 456 i-2 + K 855 iD-1 \$1999 / \$2199* **BEST BUY**

WESTINGHOUSE FJ362V + RP432V \$1569 / \$1459*

* Freezer/fridge prices.

This list includes the best fridges in each size range, as well as Best Buys, which are good performers that are comparatively cheap both to buy and run. Where possible we've included both top (T) and bottom (B) freezers in each size range.

The products in the *What to buy* list and the table change from test to test, as new products are released and tested, and older models go off the market.

About the rest

Testers noted the following about the other newly tested models.

300–375 L

- The HITACHI R-Z370AT6 is the only newly tested model with a good chiller, but it has poor cooling ability and doesn't handle seasonal change well.

376–450 L

- The ELECTROLUX EBM4307SA and FISHER & PAYKEL Elegance E411T are both almost as good as the models in the *What to buy* list, but the ELECTROLUX is a lot more expensive, and the F&P had large temperature swings.
- The DAEWOO FR-4501W and the LIEBHERR CTNes4613 had large temperature swings. The DAEWOO also used 11% more energy than claimed.

SIDE-BY-SIDE

- The BOSCH KAN56V10AU and the DAEWOO FRS-U201CW are good overall but both have electronic controls that didn't rate well for ease of use.

HOW WE TESTED

Temperature performance Our testers checked that you can get appropriate temperatures in the fresh-food and freezer compartments at the same time; assessed temperature fluctuations, as even temperatures are an important factor in maintaining food quality; checked how uniform the temperature was throughout each compartment; and measured the effect on refrigerator and freezer temperatures when the external temperature changes, such as from summer to winter.

Fresh-food cooling speed They tested the cooling strength and ability of the fridge to recognise that cooling was needed in the fresh-food compartment.

Crisper freshness They also tested how well the crisper keeps unwrapped vegetables from being dried out.

Energy efficiency This was tested to the Australian/New Zealand standard. The test also checks the energy label that's required by law to be displayed on new fridges.

Ease of use Testers considered three main areas: storage, loading/unloading and general versatility aspects; ease of cleaning; and the ease of understanding and using the controls to obtain appropriate temperatures in varying external conditions.



What to look for

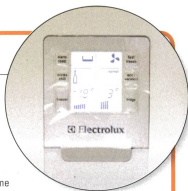
FEATURES

- **Controls** A single control may seem easier to use, but as it sets both the freezer and the fresh-food compartment, you can't adjust one without affecting the other. In most fridges with two controls, one is the thermostat and the second is usually a baffle — a flap that directs the cold air more to either one or the other compartment. Having two controls should increase your chances of getting the right temperature balance between the fridge and freezer. Electronic controls are usually better.



- A **chiller** is important if you store meat, fish or poultry (fresh or cooked) to keep it at a safe temperature for longer. Its temperature should be close to zero and ideally it has a separate temperature control. Check our results, as many don't work well.

- Some **electronic** fridges have relatively independent temperature management, with the compartments controlled by separate controls. Some even allow you to set the specific temperature in °C (such as -18 °C and 3 °C), which is ideal, as you're not leaving it up to trial and error.



- A **dairy compartment** is convenient for keeping butter and hard cheese slightly soft.
- Look for a well-sealed **crisper**, ideally with humidity control, for keeping vegetables fresh. A good crisper means you don't have to store your vegetables in plastic bags.
- **Water/ice dispenser** Some fridges have a water and/or ice dispenser on the outside of the door. The advantage is that the door isn't constantly opened for cold water. Some can take up to 30% of your freezer space, though, so check the available space in the freezer.
- Check that the **shelves (and door shelves)** are easy to remove and replace, and that the range of shelf positions suit your needs. For example, can you stand soft-drink or wine bottles in the door shelves? **Split shelves** can be handy for this.

For more on what to look for when buying a fridge, go to choiceextra.com.au and click on any of the articles under 'Fridges' in the index.

HOW RELIABLE DO SUBSCRIBERS RATE THEIR BRAND?

Fridges are comparatively reliable overall. Over 6250 subscribers told us about their fridges (bought in or after 2000) in our last reliability survey, and 9% of them had needed repair in the previous 12 months.

The graph below shows the results for brands for which we received enough replies to report on (at least 100). The number in brackets is the number of responses. A difference of 8% or more is meaningful.

FRIDGES	%
ALL FRIDGES (6286)	91
WESTINGHOUSE (1806)	93
KELVINATOR/ELECTROLUX (608)	92
LG (456)	92
FISHER & PAYKEL (2072)	91
WHIRLPOOL (272)	88
GE (132)	84
MAYTAG (162)	83

In order to fit into the table about the best models CHOICE has tested, we've dropped some of the models that didn't perform as well — they're listed here instead.

Missing models

CHOICE has now tested so many fridges, we can't fit them all into one table. In order to give you information about the best models, we've dropped from the table some of the models that didn't perform as well, but which are still available in shops. If you see one of them for a good price in shops, and are interested in buying it, check its details under the 'Fridges' articles on choiceextra.com.au. The missing models are shown here with their price and overall score.

Less than 300 L

- FISHER & PAYKEL E249T, 54%, \$809.

300–375 L

- ELECTROLUX ETM3600WB, 67%, \$1059.
- WHIRLPOOL 6WMV35NW, 65%, \$1099.
- NEW** HITACHI R-Z370AT6, 62%, \$1049 (A).

376–450 L

- WESTINGHOUSE RJ442V, 73%, \$1369 (B).
- WESTINGHOUSE Virtuoso BJ433V, 72%, \$1849 (A).
- SIMPSON SBM4300W, 70%, \$1299.
- WESTINGHOUSE Virtuoso BJ383V, 70%, \$1589 (A).
- ELECTROLUX EBM3800WB, 69%, \$1159.
- SIMPSON STM3900WA, 66%, \$1059.
- NEW** DAEWOO FR-4501W, 62%, \$899.
- WHIRLPOOL 6WMV43NW, 61%, \$1239.
- NEW** LIEBHERR CTNesf4613, 55%, \$3699.

FOR PEOPLE WITH A DISABILITY

An occupational therapist from the Independent Living Centre, NSW, assessed the newly tested fridges' suitability for people with certain disabilities.

- None of the models is highly recommended for wheelchair users, but the ELECTROLUX EBM4307SA, EBM5107SA and ESE6108WA, BOSCH KAN56V10AU, HITACHI R-Z370AT6, DAEWOO FRS-U20ICW and FR-4501W are OK, though their controls might be out of reach for some people.
- For people with upper limb dysfunction, the BOSCH KAN56V10AU and the DAEWOO FRS-U20ICW have good handles and easy-to-reach controls. They're also suitable for people with vision impairment, as food is easy to locate and organise.
- For people with back pain, the BOSCH KAN56V10AU, DAEWOO FRS-U20ICW, ELECTROLUX ESE6108WA and LIEBHERR CTNesf4613 are easy to reach into without bending down.
- For a person with cognitive impairment, none of the newly tested fridges is highly recommended, but it's easy to see and locate food in the FISHER & PAYKEL Elegance E411T and LIEBHERR CTNesf4613.

451–525 L

- SIMPSON SBM5100MA, 72%, \$1589.
- SAMSUNG SR502NXA, 69%, \$1399.
- ELECTROLUX ETM5200WB, 66%, \$1689.

Side-by-side

- BOSCH KAN58A40AU, 72%, \$2999.
- SAMSUNG SRS752QDUS, 72%, \$5999.
- MAYTAG GZ2626GEKBS, 68%, \$7699.
- LG GR-G227TVS, 62%, \$4699.

(A) Discontinued, but may still be available in some shops.
(B) Replaced by the Westinghouse WTM4400WB, which is technically the same and should get the same scores, but has different styling and features.

PRODUCT			PERFORMANCE										FEATURES	
Brand / model (in rank order within groups)	Freezer	Overall score (%)	Ease of use score (%)	Temperature score (%)	Energy efficiency score (%)	Crisper freshness score (%)	Fresh-food cooling speed score (%)	Cooling time (hr:min)	Claimed / measured energy use (kWh / year)	Noise level (dB)	Ice made / held (kg)	Chiller	Crisper drawer	
LESS THAN 300 L														
# Whirlpool WRI27SW	Top	74	68	75	82	86	58	6:14	400 / 433	43		✓ (E)	1	
LG GN-205SQA	Top	68	66	70	79	44	62	6:52	395 / 416	38		✓	1	
300-375 L														
Fisher & Paykel Elegance E372B (A)	Bottom	77	72	72	84	95	76	4:14	498 / 482	35			2	
Fisher & Paykel Tasman E331T (A) (B)	Top	76	71	68	91	90	78	4:13	407 / 388	36			1	
Westinghouse RJ362V (C)	Top	71	70	64	82	84	67	5:02	439 / 493	38			1	
376-450 L														
Westinghouse Virtuoso RJ423V (C)	Top	80	76	81	82	84	80	3:44	468 / 523	37			1	
Fisher & Paykel Tasman E381T (A)	Top	79	71	77	90	80	81	3:42	433 / 424	35			1	
Fisher & Paykel Elegance E440T (A) (B)	Top	78	76	73	92	73	82	3:33	476 / 437	36			1	
Westinghouse Virtuoso RJ393V (C)	Top	78	73	80	79	82	75	4:14	466 / 530	37			1	
Fisher & Paykel Tasman E442B (A) (B)	Bottom	76	76	72	84	92	68	4:40	583 / 527	36			2	
# Electrolux EBM4307SA	Bottom	75	70	78	81	76	61	5:14	565 / 546	36			1	
Westinghouse RJ422V (D)	Top	75	73	71	86	80	69	4:39	455 / 477	39			1	
Electrolux EBM4300WB (A)	Bottom	74	70	78	79	79	53	5:42	565 / 570	38			1	
Fisher & Paykel Elegance E402B (A)	Bottom	74	75	72	78	94	59	5:24	528 / 561	35			2	
# Fisher & Paykel Elegance E411T	Top	74	74	63	86	80	83	3:29	454 / 478	35			1	
Samsung SR446NW	Top	74	70	73	89	63	66	4:50	472 / 474	38		✓ (E)	1	
451-525 L														
Westinghouse Virtuoso RJ525V (A) (C)	Top	80	79	82	81	80	77	3:52	507 / 590	37			2	
Fisher & Paykel Elegance E521T (A)	Top	78	72	76	89	75	82	3:24	508 / 496	35			1	
# Electrolux EBM5107SA	Bottom	77	70	80	89	83	58	5:13	589 / 510	36			2	
Electrolux EBM5100WB (A)	Bottom	75	67	77	80	87	62	4:58	589 / 602	39			2	
Fisher & Paykel Elegance E522B (A)	Bottom	73	75	69	78	78	69	4:29	596 / 642	37			2	
Westinghouse RJ522V (D)	Top	73	76	66	83	80	69	4:28	508 / 569	40			2	
MORE THAN 525 L														
Fisher & Paykel RF610A	Bottom	77	65	78	79	92	78	3:42	695 / 688	37	0.5 / 2.0		2	
Samsung Cool Tech Plus SRL550DW (A)	Bottom	73	72	64	88	74	79	3:39	604 / 576	40		✓	1	
GE GBU20KBRWW	Bottom	72	71	62	89	84	71	4:12	572 / 555	43			2	
SIDE-BY-SIDE														
Westinghouse WSE6100WA (A)	LH side	77	73	76	79	76	81	3:26	687 / 705	41			2	
# Electrolux ESE6108WA	LH side	76	74	76	81	72	73	4:05	676 / 681	39			2	
# Bosch KAN56V10AU	LH side	74	71	73	85	74	65	4:37	630 / 636	37			2	
Whirlpool 6ED2FHXRRL	LH side	74	77	72	88	90	39	6:07	614 / 595	41		✓ (E)	1	
Whirlpool 6GD5SHGXSS	LH side	74	77	76	90	85	32	6:27	740 / 639	41	1.5 / 4.5	✓ (E)	1	
# Daewoo FRS-U20ICW	LH side	73	71	72	82	69	68	4:25	650 / 665	38		✓ (E)	2	
PIGEON PAIR														
Miele F 456 i-2 + K 855 iD-1 (C)	R or L	74	64	77	87	60	70	4:32	503 / 508	32			2	
Westinghouse FJ362V + RP432V (A) (C)	R or L	71	69	71	74	70	69	4:13	969 / 918	41			1	

SPECIFICATIONS								COSTS	
Door hinge position	Remove shelves with door at 90°	Dimensions (cm, H x W x D)	Claimed total volume (L)	Claimed volume, fresh food (L)	Claimed volume, freezer (L)	Contact		10-year running costs (\$)	Price (\$)
Rev	✓	171 x 56 x 65	268	204	64	www.whirlpool.com.au		650	759
R		148 x 54 x 60	205	142	63	www.lge.com.au		624	499
R or L	✓	160 x 64 x 70	373	250	123	www.fp.com.au		723	1449
Rev	✓	143 x 64 x 69	329	232	97	www.fp.com.au		582	1019
R or L		164 x 70 x 65	364	273	91	www.westinghouse.com.au		740	1059
R or L		164 x 70 x 71	416	313	103	www.westinghouse.com.au		785	1749
Rev	✓	161 x 64 x 70	380	283	97	www.fp.com.au		636	1179
R or L		170 x 69 x 70	447	342	105	www.fp.com.au		656	1536
R or L		172 x 70 x 65	393	302	91	www.westinghouse.com.au		795	1369
Rev		170 x 69 x 71	442	307	135	www.fp.com.au		791	1705
R or L		173 x 71 x 71	431	300	131	www.electrolux.com.au		819	2300
R or L		164 x 70 x 71	416	313	103	www.westinghouse.com.au		716	1319
R or L		172 x 71 x 71	431	300	131	www.electrolux.com.au		855	1379
R or L		171 x 64 x 70	403	280	123	www.fp.com.au		842	1642
R or L		170 x 64 x 70	411	314	97	www.fp.com.au		717	1483
R	✓	175 x 72 x 71	447	319	128	www.samsung.com.au		711	1299
R or L		172 x 80 x 71	517	396	121	www.westinghouse.com.au		885	1799
R or L		170 x 80 x 71	517	400	117	www.fp.com.au		744	1833
R or L		173 x 81 x 71	505	349	156	www.electrolux.com.au		765	2500
R or L		172 x 81 x 71	505	349	156	www.electrolux.com.au		903	1749
R or L	✓	170 x 80 x 71	519	360	159	www.fp.com.au		963	1875
R or L		172 x 80 x 71	517	396	121	www.westinghouse.com.au		854	1689
(F)		178 x 91 x 69	614	433	181	www.fp.com.au		1032	3699
R		180 x 83 x 73	551	361	190	www.samsung.com.au		864	1899
Rev	✓	173 x 76 x 83	588	388	200	www.kleenmaid.com.au		833	3999
na		176 x 90 x 71	606	357	249	www.westinghouse.com.au		1058	1899
na		176 x 91 x 71	606	357	249	www.electrolux.com.au		1022	2100
na		180 x 91 x 68	618	377	241	www.boschappliances.com.au		954	1999
na		170 x 84 x 78	640	415	225	www.whirlpool.com.au		893	2369
na	✓ (G)	178 x 91 x 79	740	445	295	www.whirlpool.com.au		959	3799
na		180 x 91 x 68	618	377	241	www.daewooelectronics.com.au		998	1699
Rev	✓	140 x 112 x 55	441	258	183	www.miele.com.au		762	1999 / 2199 (H)
R or L		173 x 145 x 65	791	434	357	www.westinghouse.com.au		1377	1569 / 1459 (H)

USING THE TABLE

Scores The overall score is made up of:

- Ease of use: 20%
- Temperature performance: 40%
- Energy efficiency: 20%
- Crisper freshness: 8%
- Fresh-food cooling speed: 12%

Noise level These are comparative measurements. Fridges can sound noticeably louder as the compressor starts and stops and may make unusual noises during automatic defrosting.

Claimed volumes These tell you how much air space the fridge has to cool; less space is available for storage. Use the volumes to get an idea of how big the freezer is compared with the fresh-food compartment.

10-year running costs These are calculated at a rate of 15 cents per kWh. A 10-year period gives a useful indication of the long-term differences between high and low energy use — and you should be able to expect your fridge to last at least that long.

TABLE NOTES

Newly tested models.

na Not applicable; the doors are side-by-side.

Rev Reversible door.

(A) We generally test the basic white version of a model. Fridges with this footnote are available in other styles and finishes. Some can also be built into cabinets with a door kit that matches your kitchen cupboards.

(B) New crisper and/or freezer bins have been added since our test, which may slightly affect their scores.

(C) Discontinued, but may still be available in some shops.

(D) Replaced by Westinghouse WTM4200WB and WTM5200WB respectively, which are technically the same and should get the same scores, but have different styling and features.

(E) This chiller was too warm in our tests for optimal storage of highly perishable foods.

(F) The fresh-food compartment has two French-door-style doors.

(G) Fresh-food compartment only, not freezer.

(H) Freezer/fridge price.

Turn up the heat

Unflued gas heaters are quick to heat a room and energy-efficient. CHOICE tested seven small to mid-sized heaters and added them to previously tested models.

nutshell

► Portable gas heaters are an environmentally friendly way to heat up individual rooms.
► They're more expensive to buy than portable electric heaters, but much cheaper to run.

Unflued gas heaters deliver quick, energy-efficient and comparatively cheap warmth to individual rooms in your home. They come with a capacity of up to 25 MJ/h (megajoules per hour), which is equivalent to more than 6 kW of electric heating — the same as you'd get from three 2 kW electric heaters. And while they're a lot more expensive to buy than portable electric heaters, they're much cheaper to run. However, you can't use them in every room or every situation — see page 49.

Unflued gas heaters are very efficient, with about 90% of the energy content of the gas being transformed into heat. They also produce only a quarter to a third of the carbon dioxide of an equivalent electric heater (unless you get your electricity from renewable sources).

All the models sold in Australia have to be certified and carry an efficiency label (up to six stars).

We looked at seven certified models, a mix of convection and radiant-convection types, and added them to the table of heaters from our previous test. All have an energy star rating just under six stars.

For two further models (COMPANION Comp 732 and PALOMA PG-S311FN) we encountered problems during the test. We weren't able to retest them in time for this article, but will report on their performance in a future issue.

Models in different size ranges can't be directly compared because heaters with different capacities are designed for different room sizes. So we've divided

PRODUCT	PERFORMANCE				FEATURES				SPECIFICATIONS			
Make / model (in rank order)	Overall score (%)	Heating score (%)	Ease of use score (%)	Standby power score (%)	Remote control	Timer	Child lock	Heat settings	Number of fan settings	Star rating	Claimed maximum room size (cool climate, m²)	Required minimum room size
13–15 MJ/H GAS CONSUMPTION												
# Rinnai Dynamo 15	72	71	83	54	✓	✓	✓	Thermostat	Auto	5.8	52	14
# Rinnai Enduro 13	64	63	72	54		✓	✓	Thermostat	Auto	5.8	45	14
# Rinnai Titan 151	62	53	73	100				Low, high	2	5.9	46	31
# Everdure Lancer	61	52	75	100				Low, high	2	5.9	ns	31
18–21 MJ/H GAS CONSUMPTION												
# Paloma PG-511FRN	74	73	79	71	✓	✓	✓	Thermostat	Auto	5.9	70	19
Everdure Commander	71	69	65	100				Low, medium, high	2	5.9	77	44
Rinnai Capella 18 Plus	71 / 70 (A)	77 / 76 (A)	71	28	✓	✓	✓	Thermostat	Auto	5.8	89	19
# Rinnai Galaxie 212	71	68	68	100				Low, medium, high	2	5.9	64	44
# Everdure Crusader	66	60	70	100				Low, medium, high	2	5.9	ns	38
25 MJ/H GAS CONSUMPTION												
Paloma PG-711FRN	83	85	86	64	✓	✓	✓	Thermostat	Auto	5.9	97	26
Rinnai Granada 252	79	81	68	83				Low, medium, high	2	5.9	76	52
Everdure Brigadier	76	75	65	100				Low, medium, high	2	5.9	90	52
Rinnai Avenger 25 Plus	75 / 73 (A)	82 / 79 (A)	71	33	✓	✓	✓	Thermostat	Auto	5.8	113	26

Unflued gas heaters are very efficient, with about 90% of the energy content of the gas being converted into heat.

the heaters into three categories according to their gas consumption: 13–15 MJ/h, 18–21 MJ/h and 25 MJ/h.

Apart from room size, you also need to consider the climate where you live. For example, a particular 25 MJ/h model might heat 57 m² in a cold climate but 87 m² in a mild climate. Our table shows the maximum recommended room size in a cool climate.

These heaters have an inbuilt safety switch that turns off the heater if it tilts beyond a certain angle, if the flame goes out or if harmful gases build up in the room.

Why you'd think twice...

While unflued gas heaters have their benefits, not having a flue means that emissions from the gas combustion process in the heater are vented back into your room. They're illegal to use in bedrooms, bathrooms and other small or badly ventilated rooms, so for those areas you need a flued heater (which vents the products of combustion via a flue to the outside), or an electric heater.

The maximum capacity legally allowed for thermostat models is 0.4 MJ/h per m³ of room space. So, for example, a 25 MJ/h model requires a room of at least 62.5 m³, or 26 m² with a 2.4 m high ceiling. Models without a thermostat require twice that room size.

Some states have further restrictions on the use of this heater type — check with a gasfitter or retailer.

An unflued gas heater produces carbon monoxide (CO) and nitrous oxides (NO_x), but only in relatively small quantities — Australian emission standards are among the toughest in the world. However, they can still cause problems for asthmatics or people with certain allergies or respiratory problems — a flued gas heater would be a better solution for them.

Water vapour from the combustion process can also condense on walls and ceilings and cause mould, which is why ventilation is important. >

What to buy

13–15 MJ/H GAS CONSUMPTION

RINNAI Dynamo 15 \$349

18–21 MJ/H GAS CONSUMPTION

PALOMA PG-511FRN \$999

25 MJ/H GAS CONSUMPTION

PALOMA PG-711FRN \$1149

USING THE TABLE

Scores The overall score is made up of:

- Heating: 70%
- Ease of use: 20%
- Standby power score: 10%

Star rating Out of six.

Room sizes For a ceiling height of 2.4 m. The minimum room size is a legal requirement. SA, Victoria and WA have further restrictions on the use of this heater type — check with a gasfitter or retailer.

Type See *The Basics*, page 51.

Price Recommended retail, as of March 2008

TABLE NOTES

Newly tested models.

ns Not stated.

(A) These models are gas convection heaters but have an additional electric heating element. The first score is using the electric heating element, the second score is without it. (See *The Basics*, page 51.)

SAFETY ADVICE

- Use the heater according to the manufacturer's instructions and your state's safety requirements.
- Ensure the room is large enough and well ventilated — for example, open doors to adjacent rooms, install vents, or (as a last resort) leave a window slightly open.
- Have the heater serviced according to the manufacturer's recommendations — usually every two years. A faulty or badly maintained heater can emit dangerously high concentrations of CO and NO_x.

Heater dimensions (cm, W x H x D)	Weight (kg)	Length of power cord / gas hose (m)	Type	Contact	Price (\$)
8 x 50 x 24	10.1	1.9 / 1.5	Convection	www.rinnai.com.au	949
8 x 50 x 24	10.1	2.0 / 1.5	Convection	www.rinnai.com.au	849
2 x 55 x 19	15.0	1.9 / 1.5	Radiant-convection	www.rinnai.com.au	759
1 x 57 x 23	16.7	1.7 / 1.5	Radiant-convection	www.everdure.com.au	799
3 x 48 x 22	12.0	1.9 / 1.5	Convection	www.raypak.com.au	999
3 x 57 x 29	19.7	1.7 / 1.5	Radiant-convection	www.everdure.com.au	899
1 x 57 x 24	18.3	2.0 / 1.5	Convection	www.rinnai.com.au	1209
2 x 54 x 20	15.9	2.0 / 1.5	Radiant-convection	www.rinnai.com.au	859
1 x 57 x 29	18.1	1.7 / 1.5	Radiant-convection	www.everdure.com.au	849
3 x 49 x 24	11.9	2.0 / 1.5	Convection	www.raypak.com.au	1149
2 x 54 x 23	15.9	2.0 / 1.5	Radiant-convection	www.rinnai.com.au	989
1 x 57 x 29	21.0	1.7 / 1.5	Radiant-convection	www.everdure.com.au	999
1 x 57 x 24	18.6	3.0 / 3.0	Convection	www.rinnai.com.au	1396

Profiles

13–15 MJ/h gas consumption



RINNAI Dynamo 15

PRICE \$949

TYPE Convection

MINIMUM ROOM SIZE 14 m² with a 2.4 m high ceiling.

GOOD POINTS

- Easy to start and to program the timer.
- Portable and lightweight.
- Has a thermostat, remote control and child lock.
- Timers can turn the heater on and off twice a day.
- The equal lightest model in this size range, which helps when moving it around.

BAD POINTS

- None to mention.

18–21 MJ/h gas consumption



PALOMA PG-511FRN

PRICE \$999

TYPE Convection

MINIMUM ROOM SIZE 19 m² with a 2.4 m high ceiling.

GOOD POINTS

- Quick to raise the temperature by 5°C and 10°C.
- Very even room temperature.
- Has 'economy' mode.
- Easy to start.
- Has a thermostat, remote control and child lock.
- Timers can turn the heater on and off twice a day.
- The equal lightest model in this size range, which helps when moving it around.

BAD POINTS

- No instructions supplied and the warranty wasn't stated.
- Failed the tilt test, falling backwards at less than 15° (but its tilt switch turned it off).

25 MJ/h gas consumption



PALOMA PG-711FRN

PRICE \$1149

TYPE Convection

MINIMUM ROOM SIZE 26 m² with a 2.4 m high ceiling.

GOOD POINTS

- Fastest to heat up the test room.
- The easiest to use.
- Electronic model: has a thermostat, remote control and child lock.
- Timers can turn the heater on and off twice a day.
- The lightest model in this size range, which helps when moving it around.

BAD POINTS

- Slightly damaged in our towel drape test (see *How we tested*, below).

About the rest

13–15 MJ/h GAS CONSUMPTION

- The RINNAI Enduro 13 is OK for performance but not as good as the top performer in the size range.
- The RINNAI Titan 151 and EVERDURE Lancer scored only just over 50% for performance.

18–21 MJ/h GAS CONSUMPTION

- The models that aren't in the *What to buy* list are heavier and not as easy to use, and the EVERDURE Crusader has worse heating performance.

25 MJ/h GAS CONSUMPTION

- The models that aren't in the *What to buy* list are heavier and not as easy to use as the PALOMA PG-711FRN.

An unflued gas heater is illegal to use in bedrooms, bathrooms and other small or badly ventilated rooms.

HOW WE TESTED

Speed Our testers checked how long the heaters (on their maximum heat and fan settings) took to increase our test room's temperature by 5°C and 10°C from a starting temperature of 8°C. The outside temperature was maintained at 8°C.

Consistency They created a profile to show how evenly the room heated.

Safety With this type of heater, safety aspects are very important, so the testers carried out a range of standard gas and electrical safety tests and measured surface temperatures.

Ease of use They assessed how easy the controls are to use, how clearly they're marked and how easy it is to clean and change the filter. They also looked at portability, ease of use of the remote control and how easy the timer is to program.

Towel drape test Does a towel catch fire if it's draped on top of the heater? The result is assumed for models with an exposed heating element.

Standby power Energy on standby was also measured.

What to look for

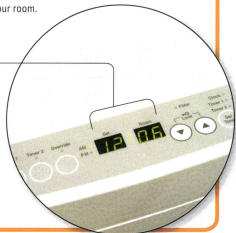
BEFORE YOU BUY

- All the tested models come in **natural gas** and **LPG** versions (you need to say which you want when you buy). LPG has similar environmental benefits when compared to electricity, but is a lot more expensive.
- For the natural gas models in this test you need a professionally installed **gas bayonet outlet**. Plugging the heater's gas hose into the bayonet works like a bayonet light fitting.
- Measure the room you want to heat, and check with a local installer whether the **climate** in your area is considered 'mild', 'cool', 'cold', or 'very cold'. Look for a heater with a capacity that matches size and climate, and that can be legally operated in your room.

THE BASICS

Unflued heaters are either convection or radiant-convection models.

- Convection** heaters rely on the natural movement of hot air, but also have a fan to speed things up. They're often electronically controlled, which means they have, for example, a thermostat and a remote control. A thermostat is particularly useful, as it provides better temperature control than the heat and fan settings on models that aren't electronically controlled. The external surfaces on convection heaters shouldn't get very hot. However, electronically controlled models also use standby power — some more than 10 W.
- Radiant-convection** models too rely on convection, but they have an exposed area that radiates heat into the room as well. Radiant convectors tend to be cheaper to buy, but have fewer features (no thermostat, timer, remote control, etc) than similarly sized convection heaters.
- Safety features switch the heater off in case something's wrong — for example, an **oxygen depletion system** if the oxygen level in the room gets too low; **flame-failure protection** in case the flame gets extinguished; and **tilt switch** if the heater tips over. All the tested models have these features.



<How to calculate your heating needs

Our calculator (see right) allows you to estimate the heat loss of a room and the heating capacity you'll need to warm it. You can find an automated version on choiceextra.com.au; click on 'Your heating options' under *Heaters* in the index. Here's how it works:

- You measure the different elements of the room as the calculator asks and fill in their size in square metres (multiply length by height or width to calculate square metres). Then multiply the area by the heat loss factor for each element. This will give you an estimate of the heat loss in watts through each element of the room.
- Add up all the heat losses of the room elements to get the total heat loss of your room.
- Now add 50% to cover the extra capacity needed to heat up a cold room, and other factors such as draughts.
- Divide the result by 1000 to get the required heating capacity in kW.
- Portable and off-peak electric heaters have (almost) 100% efficiency and air conditioners are rated according to their output energy. So the kW value you've calculated in the last step is the capacity of the electric heater or air conditioner you'll need.
- Gas heaters are rated in MJ of input energy: as 1 kW equals 3.6 MJ, you'll need to multiply the kW figure by 3.6 to get the required heating capacity in MJ. However, gas heaters don't turn all the energy in the gas into heat — their efficiency is about 90% for unflued heaters and 75% for flued heaters. The heating calculator takes this into account. ■

HEAT LOSS CALCULATOR LOOKING AT YOUR ROOM ELEMENTS:

Area	Heat loss factor
Ceiling (to insulated roof or unheated room above)	_____ sq m x 20 = _____ W
Ceiling (to uninsulated roof)	_____ sq m x 40 = _____ W
External walls (insulated)	_____ sq m x 10 = _____ W
External walls (uninsulated)	_____ sq m x 26 = _____ W
Internal walls to heated rooms (inc. neighbouring homes)	_____ sq m x 0 = no losses
Internal walls to unheated rooms (inc. neighbouring homes)	_____ sq m x 16 = _____ W
Windows with double glazing or full-length curtains	_____ sq m x 40 = _____ W
Other windows	_____ sq m x 80 = _____ W
Floor (slab on ground)	_____ sq m x 10 = _____ W
Floor (above open space or unheated room)	_____ sq m x 20 = _____ W
Total heat loss	= _____ W
Add 50%	= _____ W

Adapted from CSIRO's publication *Room heaters and coolers — choosing the best size*. The calculator can only be used to estimate a room's heater capacity, not for ducted systems.

HEATER CAPACITY RESULTS

Electric heater

Divide the final figure you arrived at in the *Heat loss calculator* by 1000 to get kW
= _____ kW*

Unflued gas heater

Multiply the kW you've just calculated for an electric heater by 4 to get input MJ
= _____ MJ*

Flued gas heater

Multiply the kW for an electric heater by 4.8 to get input MJ
= _____ MJ*

* This is the capacity needed to maintain a temperature difference of up to 12°C between indoors and outdoors. In extreme climates this may not be enough, and you may need a larger capacity.



Slow and easy

Curries, stews, soups and casseroles are wonderful in winter. CHOICE's slow cookers test revealed this appliance excels in the kitchen.

nutshell

- Nine slow cookers on test: they're all good, and four made it into the *What to buy* list.
- Slow cookers cater for our time-poor society, so it's no wonder they're enjoying such a resurgence in popularity.

“Well, I'm impressed!,” is not your usual test report language, but it's how our home economist introduced her report summary for the latest test of what had just become her new favourite appliance — slow cookers. “A dish that cooks itself, practically. It's hard to believe, but with a bit of preparation at the start of the day you can come home to a meal that's ready when you are.”

If you can do with help in the kitchen, are always short of time or just love slow-cooked meals like curries, a slow cooker could be the answer to your problems.

All you do is prepare the ingredients in the morning, add the required liquid according to the recipe, set the heat control and then forget about it. At the end of the day, dinner is ready. The appliance will have cooked it slowly at relatively low temperatures while you were busy elsewhere — it's designed to operate safely while it's unattended.

Slow cookers are good with tougher cuts of meat, such as stewing beef, shank or blade, which will become tender, stay moist and won't dry out over the long hours required for cooking. They're perfect for stews, soups, casseroles and other winter warmers, and pot roasts or one-pot meals in summer.

For more on using a slow cooker, see *The best slow cooking*, page 55. There's also a recipe for cooking corned beef in a slow cooker on page 54.

Cooking performance

For this test we bought eight large and one smaller oval-shaped slow cookers with a ceramic cooking bowl, ranging in price from about \$40 to \$90. All did well in our tests. We cooked soup (for four hours on high) and corned beef (for eight hours on low). Most cookers tested also have an 'auto' temperature setting, which cooks a dish on high for a certain amount of time then switches to low. None has an inbuilt timer, so you have to ensure you arrive home at the right time to turn off the cooker.

Most of the cookers had no problems cooking soup. Those that scored 75% in this test (rather than 100%) produced slightly undercooked soup, but we only deducted a few points because you can just cook it a little longer. Alternatively, start your cooking with hot liquid, as some manufacturers recommend — we used cold in our test, for consistency. The GEORGE FOREMAN scored lower because it overcooked the soup, turning it mushy.

The majority also did a very good job with the corned beef, but three (the TIFFANY, BELLE and MORPHY RICHARDS) performed poorly, overcooking the beef. We were less lenient with the corned beef scores, as you can't 'fix' an overcooked chunk of corned beef, and if it's undercooked you'll have quite a wait for dinner. If you're using the slow cooker to make a meal while you're out at work, you can hardly cook it for less than eight hours, the average recommended cooking time.

Did you know ?



Slow Food®

using local and seasonal produce, honouring traditional food preparation methods and, last but not least, about sharing food at a convivial table. The slow food movement has grown into a large not-for-profit organisation with more than 80,000 members worldwide, who meet in small, local groups known as *convivia*. In Australia, it's represented in each state and territory. For more information and links to the 36 Australian *convivia*, check out the movement's international website at www.slowfood.com.

Beyond the cooking ...

The external surfaces of all the cookers got hot (up to 83°C) when cooking soup on high, almost as hot as the soup inside. So take care handling a cooker when it's on. It's a pity they aren't better insulated, which would not only reduce the burn risk but also lower their energy consumption.

In our soup test, the slow cookers were on high for four hours and consumed almost twice the electricity required to cook it conventionally (for almost two hours) on an electric cooktop.

We didn't compare their energy use with that of a conventional oven as neither of our test recipes would be cooked in an oven; however, you could expect a slow cooker to use less energy than an oven.

Although the cookers are big and bulky, they're all easy to use and to clean, as long as the bowl fits into your sink.

When cooking soup on high, beware of spillage. Condensation forms when the food heats up and because all the lids are loose-fitting, it can splash out. So put your slow cooker where a few spills won't matter, or keep an eye on it when cooking soup. >

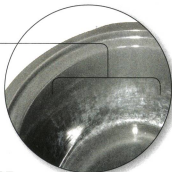
What to look for

THE BASICS

When choosing a slow cooker, consider the following:

- **Size** Cupboard space required for storage, bench space for usage, and the number of people you cook for.
- **Controls** Bright indicator lights and a control switch that's easy to access and is clearly labelled.
- **Exterior** Few cracks or crevices for food to get trapped.
- **Cleaning** Each part should be easy to clean — a stainless steel exterior needs more care.

After our tests, a light residue from cooking was more visible in a black ceramic bowl than in a white one. (Only the GEORGE FOREMAN and TIFFANY had a white bowl.)



DISABILITY ADVICE

Someone with a disability should look for a cooker that's not too big and is easy to handle — a large bowl can be heavy or not fit into a small sink. It should have clear instructions and large, well-labelled controls at the front that are easy to operate. Of the cookers in our test, the GEORGE FOREMAN and TIFFANY fit most of these criteria.

HOW WE TESTED

Cooking performance Our tester assessed the appliances' performance in two tests: corned beef, and vegetable soup. The corned beef test, with pieces of corned silverside, served to check the appliances' ability to cook a dish at a low temperature over an extended period of time; the soup test, with packets of mixed dried pulses (barley, lentils, peas) established how well each appliance can cook a dish at high temperatures over a shorter time (four hours) without it sticking to the bottom.

Her verdict came at the end of the day, when she assessed how well the dishes looked ... and tasted, of course. Scores were awarded for appearance and texture, with deductions for dark or dried-out areas in the meat, overcooked texture or soup sticking to the pot.

Food safety To check that food reaches a safe temperature, our tester half-filled each pot, set the control to low and monitored the temperature of the water over eight hours. To prevent harmful bacterial growth, the contents' temperature has to reach 60°C within four hours and then maintain this temperature or higher. She also conducted this test on the 'auto' setting, if applicable. All cookers passed the food safety test, so there are no scores.

Ease of use For this score, she assessed how easy the cookers are to assemble, to store and to clean. She also considered the controls and steam-venting mechanisms, as well as noise, and external temperature of the cooker surface, handles and controls during operation.



The GEORGE FOREMAN has good **controls** and is easier to clean, as it's smaller than the other cookers on test. But you'll need to experiment with cooking times — in our tests the soup was overcooked.

What to buy \$

KAMBROOK KSC100	\$70
RONSON RSC100	\$90
SUNBEAM HP5500	\$70
BREVILLE 5 BCS300	\$80

The majority of the slow cookers did a good job with corned silverside, but three of them overcooked the meat.

Slow cookers work best when filled half to two thirds of their capacity. If that's more than you need, freeze the leftovers.

Profiles



KAMBROOK KSC100

PRICE \$70

GOOD POINTS

- Excellent score for cooking soup.
- Very good score for cooking corned beef.
- Bowl and lid are dishwasher-safe.
- Comprehensive instructions with recipes.

BAD POINTS

- The indicator light is small.



RONSON RSC100

PRICE \$90

GOOD POINTS

- Excellent score for cooking corned beef.
- Bowl and lid are dishwasher-safe.
- Comprehensive instructions with recipes.

BAD POINTS

- The indicator light is small.
- The heaviest of those tested.
- Liquid spilt onto the benchtop during cooking.



SUNBEAM HP5500

PRICE \$70

GOOD POINTS

- Excellent score for cooking corned beef.
- Comprehensive instructions with recipes.

BAD POINTS

- None to mention.



BREVILLE 5 BSC300

PRICE \$80

GOOD POINTS

- Excellent score for cooking corned beef.
- Bowl and lid are dishwasher-safe.
- Comprehensive instructions with recipes.

BAD POINTS

- The lowest ease of use score — its temperature control positions are confusing.

CHOICE's slow-cooking corned beef

Ingredients

- 2.5 kg corned silverside, fat removed
- 1.5 L water
- 1 onion, chopped
- 10 peppercorns
- 2 bay leaves
- 2 tbsp brown sugar

Method

Place the silverside into the slow cooker and barely cover it with water. Add the remaining ingredients, fit the lid and cook the meat on low until ready (about eight hours).

About the rest

The remaining slow cookers scored well overall; see the table for details. Some other points worth mentioning include:

- Unlike the models in the *What to buy* list, the RUSSELL HOBBS didn't get 100% for either cooking test, but its scores are still good.
- The GEORGE FOREMAN uses the least amount of energy and is easiest to store and clean because of its size and weight.
- The TIFFANY, BELLE and MORPHY RICHARDS overcooked the corned beef.
- The TIFFANY and the comparatively heavy MORPHY RICHARDS split liquid onto the benchtop during cooking.

USING THE TABLE

Scores The overall score is made up of:

- Cooking corned beef: 30%
- Cooking soup: 30%
- Ease of use: 40%

Price Recommended or average retail, as of February/March 2008.

TABLE NOTES

- ns Not stated.
(A) Discontinued, but may still be available in some shops.
(B) With a maximum working capacity of 4.5 kg.

For safety, add dairy products, fish or seafood when you get home, or within the last half-hour of cooking.

THE BEST SLOW COOKING

- Food cut into similar-sized chunks will cook more evenly. Place meat on top of any vegies.
- All food should be completely defrosted, and perishable food kept refrigerated, before putting it in the slow cooker.
- Some ingredients may require preparation on the cooktop first, such as browning mince, searing chunks of meat or cooking onions, garlic or spices to enhance flavours.
- Dried red kidney beans should be cooked at boiling point for at least 10 minutes beforehand to destroy toxins that'll otherwise survive the lower temperatures of a slow cooker.
- Leave out any dairy products, fish or seafood and add them when you get home, or within the last half-hour of cooking.
- Don't be tempted to check on the pot once it's started cooking. You'll only extend the cooking time if you lift the lid and let moisture and heat escape.
- To convert a traditional recipe for use in a slow cooker, reduce the amount of liquid by half and increase the cooking time. About one hour in the oven equals about six to eight hours on low in a slow cooker.
- If there's a power failure while you're out and your meal's cooking, throw it out — it could be unsafe to eat.
- Once you've served the food, don't leave any leftovers in the slow cooker for too long. It needs to be kept hotter than 60°C (or cooler than 5°C) to avoid harmful bacteria growth.
- Don't reheat leftovers in one; use a microwave, cooktop or oven.

PRODUCT	PERFORMANCE				FEATURES	SPECIFICATIONS					
Brand / model (in rank order)	Overall score (%)	Cooking score: corned beef (%)	Cooking score: soup (%)	Ease of use score (%)	Auto setting	Dimensions (cm, W x H x D)	Weight (kg)	Claimed capacity (L)	Dishwasher-safe	Contact	Price (\$)
Kambrook KSC100	82	80	100	70		40 x 27 x 31	5.9	6.0	✓	www.kambrook.com.au	70
Ronson RSC100 (A)	81	100	75	70		41 x 28 x 30	6.2	6.0	✓	www.housewares.com.au	90
Sunbeam HP5500	81	100	75	70	✓	44 x 26 x 31	5.8	5.5	✓	www.sunbeam.com.au	70
Breville 5 BSC300	79	100	75	67		40 x 26 x 30	5.4	5.0	✓	www.breville.com.au	80
Russell Hobbs RHSC600	75	80	75	70	✓	41 x 24 x 30	5.6	6.0	ns	www.salton.com.au	70
George Foreman GFSC35	74	80	60	80	✓	34 x 22 x 25	3.6	3.5		www.salton.com.au	50
Tiffany SC4550	73	40	100	77	✓	39 x 25 x 31	5.1	5.0		www.gafcontrol.com.au	40
Belle SC55	70	40	100	70	✓	42 x 24 x 29	4.8	5.5	✓	www.saabappliances.com.au	40
Morphy Richards 48715	70	40	100	70		41 x 24 x 30	6.1	6.5 (B)	✓	www.morphyrichards.com.au	80



Stepping up

Don't risk your safety with a second-rate stepladder. Only three out of 12 we tested passed all our key safety tests.

nutshell

► On test: 12 small two- or three-step ladders for home use. Eight have a platform you can stand on, with a safety rail, instead of just a top step.
► None of the cheaper stepladders for \$50 or less can be recommended, but neither can two that cost more than \$100.

When you put your feet on the first step of a home stepladder, you should be confident it will take your weight, feel firm underfoot and not wobble as you reach for that blanket from the top shelf of the wardrobe or take the curtains down for a wash.

For this report we put 12 small stepladders through a range of safety tests to see whether they'll support you safely.

What to look for

WHICH TYPE?

Stepladders with a domestic duty rating can support loads of up to 100 kg; you'll need one with an industrial rating (120 kg or 150 kg) if any user weighs more than that. Stepladders are available in two types:

Platform stepladders

generally have a wide, non-slip platform near the top to provide a working area where you can stand fairly comfortably. The ones in our test have two or three usable steps and a safety rail at the top against which you can brace your legs or body, depending on the rail's height.



Small stepladders

are lighter and easier to use than the common 1.8 m A-frame ladder, with its bulk and weight. They're available single or double-sided; double-sided models have steps on both sides. The ones in our test have two usable steps and a top cap of various widths. This is the uppermost horizontal member of a stepladder, but it's not a step. The top cap of this ladder only comes up to mid-shin height, so it's less comfortable to lean against when working on the ladder.



What to buy \$

BAILEY Satellite FS10450 (3 steps)

BEST BUY

\$99

GORILLA Aluminium Contractor M003-C (2 steps)

BEST BUY

\$65

ULLRICH General Purpose GP03 (2 steps)

\$155

These three ladders were the only ones that stayed structurally sound after passing all our tests (the GORILLA and ULLRICH failed the second walking test, but only just). We think that shows they're the most robust for safety in everyday use.

LADDER FACTORS TO CHECK

While some weaknesses of ladders will only be revealed in lab tests, there are things you can check yourself when shopping for a stepladder. Unpack it before you buy to ensure:

- It's the right height and load rating for your needs. The table, page 59, lists which models in the test can support a heavier weight — up to 150 kg.
- It's rigid and secure when set up.
- It's labelled with clear safety instructions.
- Its feet have a secure grip.
- The higher the rail reaches, the more secure you'll feel standing on the top step.
- Deep and wide steps make you feel more secure when standing on the ladder.

- A tray for tools or a paint tin at the top of the safety railing can be handy.



DO'S AND DON'TS OF LADDER SAFETY

A fall from a height of one to two metres can be enough to cause serious injuries, such as fractured limbs, spinal cord damage, severe brain injury or even death. Over the five years to 2006, at least 83 Australians, mainly men, died after falling from a ladder, and thousands more have been seriously injured, according to the ACCC. Men at or nearing retirement age are in the highest risk category for accidents involving a fall from a ladder. When using a stepladder at home, follow these do's and don'ts.

WHAT TO DO

- Read and follow the ladder's safety instructions, and don't stand higher than recommended.
- Check it's undamaged, clean and dry before you use it.
- Wear shoes with a good grip on the soles to avoid slipping.
- Open the ladder fully and make sure all joints and spreaders are locked firmly in place.

- Place it on a firm and level surface that's dry and not slippery; never try to extend it by balancing it on boxes, bricks or other unstable bases.
- Keep at least one hand (preferably both) on the ladder when ascending or descending.
- Climb up and down facing the ladder.
- Store it in a dry, ventilated place to prevent rust and rot.

WHAT NOT TO DO

- Don't use it folded leaning against a wall.
- Don't use it in front of a door that someone could open onto it.
- Don't load it beyond its rating.
- Don't use it as a scaffold support.
- Don't reach out too far while on it.
- Don't carry a load that needs both your hands, or is heavy enough to unbalance you, up or down a ladder.
- Don't use a metal ladder for electrical work.

'Walking' happens when a ladder isn't rigid enough and moves when you shift your weight, which could be enough to make you fall off.

Not up to standard

CHOICE thinks it's important that all ladders on the market comply with the current Australian standard for portable ladders in terms of safe and solid construction, so we tested them to key clauses in this standard. However, the standard is voluntary for manufacturers and only five ladders (the BAILEY, GORILLA, both ULLRICHs and the GEELONG Single-Sided) claim to comply with it.

We subjected the ladders to a maximum of six tests (shown in **bold** below) — fewer if they suffered damage in one of the earlier tests. They were tough tests, but justifiably so, given it's your safety that's at-risk. First was the **stability** test, which they all passed.

In previous tests we'd found that **'walking'** was the main problem with some stepladders, so for this test we subjected those that survived the other tests to a second walking test to see whether they had deteriorated as a result of our testing. Walking happens when a ladder isn't rigid enough and moves when you shift your weight from side to side, which could be enough to make you fall off if it happened unexpectedly. Three ladders failed even the first walking test (the ULLRICH Doubled Sided, GAF and HOUSE & HOME), with almost twice the maximum allowable movement.

The GAF and HOUSE & HOME then failed the **stile bending** test (the stiles are the sides of the ladder that support the steps), which checks that the stiles aren't too

flimsy and will survive heavy loading; those two ladders incurred structural damage to their steps. The SAFETY FIRST ladder also failed this test (its stiles bent more than the allowable limit), but this was a more stringent test because the standard specifies a force four times the load rating, and it had the highest rating (150 kg).

The **tread to stile shear** test (tread is another word for step) checks how the steps perform when heavily loaded. Only four ladders passed: the three in the *What to buy* list and the ULLRICH Double Sided. The others incurred various types of damage under the test force (of three times the rated load): steps collapsed, stiles deformed, supports bent, feet pulled off and rivets pulled out.

Only three ladders had passed all the tests so far (the three in the *What to buy* list). They, plus two others that had failed a test but were still structurally intact, were subjected to the **tread bending** test: all passed. Of these, only the BAILEY, survived the **second walking** test. While this test isn't required by the standard, it helped us find out how well the ladder had survived the previous test.

However, the BAILEY was tested with a lighter test force than the GORILLA and ULLRICH GP03 because of its lower load rating. These two failed this test only by a small margin and remained structurally sound, so we included them in the *What to buy* list — the tests were rigorous and any ladder that got through them unscathed should keep you safe under normal use. >

What to buy

ULLRICH GENERAL PURPOSE GP03

PRICE \$155
TYPE Small step ladder

The ULLRICH and GORILLA (right) passed most of the key safety tests; they only failed the second walking test, but by a small margin, and remained structurally sound enough to be recommended. Both ladders have two usable steps and a top cap. While they felt solid and didn't sway in our tests when stood upon, their steps are only about 8 cm deep, which makes you feel less secure than a deeper step. And the top cap only comes up to about mid-shin height, which provides less security than a higher safety railing. The GORILLA M003-C is a little easier to fold and unfold. Its spreaders are cross-connected, so you can lock them into place from one side; on the ULLRICH GP03 you have to press both spreaders into and out of place.



BAILEY Satellite FS10450

PRICE \$99
TYPE Platform step ladder
The only ladder in the test that passed all key safety tests. It also scored highest for ease of use and equal best for easy folding and unfolding — its top step doubles as a spreader, so you don't need to bend down to lock any catches or latches into place. It's the tallest of the recommended ladders and has three usable steps. The top platform is deep enough to support most of your foot when standing on it, but it felt a little wobbly because it's rather narrow, preventing a stable, wide stance. It has a safety rail with a handy tool and paint tray that's made of plastic, which feels comfortable against your body but only reaches to about knee height when you're standing on the platform.



GORILLA ALUMINIUM CONTRACTOR M003-C

PRICE \$65
TYPE Small step ladder



BEST BUY

CHOICE's tests were rigorous and any ladder that got through them unscathed should keep you safe under normal use.

USING THE TABLE

Ease of use score This includes ease of folding and unfolding, and how secure the ladder feels when stood upon. Both aspects are weighted equally.

Tests See *How we tested*, page ??.

Price Recommended or average retail, as of December 2007/January 2008.

TABLE NOTES

* All the platform stepladders have a safety rail at the top.

** Includes safety rail, where present.

nt Not tested due to previous damage, or the test isn't applicable to this ladder.

(A) Discontinued, but may still be available in some shops.

PRODUCT	PERFORMANCE	
	Ease of use score (%)	Passed stability test
RECOMMENDED: THESE LADDERS PASSED ALL THE KEY SAFETY TESTS		
Brand / model (in order of ease of use score, within groups)		
Bailey Satellite FS10450	90	✓
Gorilla Aluminium Contractor M003-C	85	✓
Ullrich General Purpose GP03	75	✓
THE REST: THESE LADDERS FAILED ONE OR MORE OF THE SAFETY TESTS		
Geelong Single Sided	85	✓
Geelong Wide Tread DWL3WB	85	✓
Household Safety First TR3-WHB (A)	85	✓
Lion 3 Step Aluminium LT550R	85	✓
Safety First 3 Step CRA030-3	85	✓
Ullrich Double Sided DST03	80	✓
Homemaker 2 Step Fold-up	75	✓
GAF 3 Step SL3 (A)	60	✓
House & Home 2 Step	60	✓

About the rest

The remaining nine ladders failed at least one major safety test. For details of which test(s) they failed, see the table, but our testers also noted a few other factors:

- The GEELONG Single Sided and ULLRICH Double Sided have two steps and a top cap — no platform. The former has steps on one side only, the latter on both sides. Both felt solid and stable when stood upon.
- The GEELONG Wide Tread DWLSL3W, HOUSEHOLD Safety First and SAFETY FIRST are of very similar design and have three usable, deep (26 cm) steps including a top platform and a high safety rail.
- The remaining ladders all have a platform with safety rail, but their height varies — see the table for details. The LION and GAF have three usable steps; the HOMEMAKER and HOUSE & HOME have two.

HOW WE TESTED

Safety The stepladders were tested according to key clauses of the Australian standard AS/NZS 1892.1:1996 Portable Ladders, Part 1: Metal. For the first two tests all ladders were tested with the same loads, but for the remaining tests with a multiple of their rated load, as required by the standard.

- For the **stability test**, testers preloaded each ladder with a 120 kg force, applied various forces to the front, sides and rear and observed whether the ladder's feet stayed in contact with the ground.
- The **walking tests** assess the ladder's rigidity. Testers loaded each ladder with a 10 kg force, applied sideways forces to each side to raise the legs off the ground (as if you'd leant sideways or reached out) and measured the resulting movement of the front stiles (the sides that support the steps). They repeated this test after the other tests to determine which ladders still passed, and were the most robust.
- The **stile bending test** checks that the stiles aren't too flimsy and will survive heavy loading. Testers applied a force of four times the rated load, checked for structural damage and measured the stiles for permanent deflection.
- The **tread (step) to stile shear test** [with a force of three times the rated load] checks that the steps or rungs will survive heavy loading.
- The **tread bending test** [with a load two-and-a-half times the rated load] checks the steps' or rungs' resistance to bending.

Ease of use Testers checked:

- How easy the ladders are to fold and unfold.
- How secure the ladders felt when they stood on them.

The tests are quite tough, but justifiably so, given it's your safety that's at risk.

					FEATURES		SPECIFICATIONS								
Walking test	Passed stile bending test	Passed tread to stile shear test	Passed tread bending test	Passed second walking test	Number of steps	Platform top step*	Step depth (cm)	Top step depth (cm)	Load rating (kg)	Height (cm)**	Weight (kg)	Material	Contact	Price (\$)	
✓	✓	✓	✓	✓	3	✓	8	27	100	123	3.5	Aluminium	www.baileyladders.com.au	99	
✓	✓	✓	✓	✓	2		8	14	120	87	4.3	Aluminium	www.gorillaladders.com.au	65	
✓	✓	✓	✓	✓	2		8	16	120	86	4.4	Aluminium	www.ullrichmetals.com.au	155	
✓			✓		2		7	9	100	85	5.7	Steel	03 5225 4400	33	
✓		nt	nt		3	✓	26	26	100	124	8.3	Steel	03 5225 4400	50	
✓		nt	nt		3	✓	26	26	100	123	7.3	Steel	1300 362 393	50	
✓		nt	nt		3	✓	8	25	120	116	2.6	Aluminium	www.lionaust.com.au	119	
		nt	nt		3	✓	26	26	150	123	7.3	Steel	www.hsw.com.au	80	
✓	✓	✓	✓		2		8	20	120	86	4.9	Aluminium	www.ullrichmetals.com.au	139	
✓		nt	nt		2	✓	8	15	100	98	2.9	Steel	www.kmart.com.au	20	
		nt	nt		3	✓	20	20	125	105	5.8	Steel	www.gafcontrol.com.au	30	
		nt	nt		2	✓	26	26	100	77	4.7	Steel	www.bigw.com.au	22	



Wheeler appealers

Ten more three- and four-wheel strollers are on test — both types have their good points, so the choice comes down to personal preference.

nutshell

- On test: 10 strollers (five three-wheelers and five four-wheelers) priced up to \$449.
- Two failed our durability test and one failed a safety test.

Strollers come in all sorts of styles these days: playback, umbrella-fold, small and basic versus large and feature-packed. But one of your main decisions is likely to be how many wheels it should have. And that depends on what's most important to you.

Three-wheelers tend to be wider, longer and heavier than four-wheelers. But they're usually easier to push around, thanks to larger wheels (which are often on bearings, so they pivot easily) and inflatable tyres that help absorb the bumps. However, that easier manoeuvrability makes them more likely to roll away if left unattended, and they're more prone to tipping, particularly when turning corners or mounting a kerb.

Four-wheelers — especially umbrella types (so-called because they fold up rather like an umbrella) — aren't

just more compact when in use, but most also fold into a smaller package, so are a better option for public transport. Some newer designs — such as the BUGABOO and STOKKE from the May 2006 and September 2007 issues — have two small wheels at the front and two large wheels at the rear. This gives them advantages of both types — the stability of a four-wheeler with the manoeuvrability of a three-wheeler. None were in this test.

Mind your fingers!

Recent incidents involving both adults and children injuring their fingers while folding or unfolding a stroller highlight the need to be careful doing this. Most strollers have plenty of places where a carelessly placed finger could get a painful pinch, or worse (see *Stroller danger*, page 5). >

What to buy

These strollers passed all our safety and durability tests. They're profiled here in order of their ease of use scores.

STEELCRAFT Strider 3 30136

PRICE \$449

THREE-WHEELER

GOOD POINTS

- Reversible seat.
- The mechanism to lock the front swivel wheel is located on the handlebar.
- Rain cover.
- Padded shoulder straps.

BAU POINTS

- No tether strap.
- No leg cover or insect cover.



ZUZU Ink 476

PRICE \$298

THREE-WHEELER

GOOD POINTS

- Rain cover and insect cover.
- Padded shoulder straps.

BAU POINTS

- No tether strap.
- No leg cover.
- Heavy.



What to buy

CHILDCARE Blaze 013520

PRICE \$207
THREE-WHEELER
GOOD POINTS

- Tether strap (to go around the adult user's wrist and attach to the handlebar).
- Rain cover and leg cover.

BAD POINTS

- Rear brakes not linked.
- No padding on shoulder straps.
- No insect cover.



MACLAREN Quest W0708013

PRICE \$252
FOUR-WHEELER
UMBRELLA-FOLD
GOOD POINTS

- Lightweight.
 - Rain cover.
- #### BAD POINTS
- Rear brakes not linked.
 - No tether strap.
 - No padding on shoulder straps.
 - No leg cover or insect cover.



SWALLOW Bravo

PRICE \$199
THREE-WHEELER
GOOD POINTS

- Tether strap.
- Leg cover.

BAD POINTS

- No padding on shoulder straps.
- No rain cover or insect cover.



MOTHERS CHOICE Ensor Sport JG772

PRICE \$199
THREE-WHEELER
GOOD POINTS

- Tether strap.
- Leg cover.
- Padded shoulder straps.

BAD POINTS

- No rain cover or insect cover.



VALCO Prism N3486

PRICE \$270
FOUR-WHEELER
UMBRELLA-FOLD
GOOD POINTS

- Padded shoulder straps.

BAD POINTS

- No tether strap.
- No rain cover, leg cover or insect cover.



About the rest

- A bolt joining a front wheel to the frame of the BEBE CARE Orion broke during our durability test. We replaced it and the stroller completed the remainder of testing without incident.
- The ROGER ARMSTRONG Elyse also failed the durability test; a wheel housing broke and lost its ball bearings. The stroller completed the rest of the tests without any other failures.
- The CHICCO Evolution failed one safety test — there's no head barrier at the rear to prevent a child accidentally slipping through when the seat back is reclined.

Three-wheel strollers tend to be wider, longer and heavier, but their larger wheels make them easier to push around.

An adult could trap their fingers if they were careless when folding any of these strollers — ‘umbrella’ models in particular.

< We checked this current batch of strollers for any pinching, shearing or scissoring hazards that might pose a risk to either the child or an adult operating the stroller. None of them has any significant hazards for a properly harnessed child when the stroller's in normal use.

However, if the folding mechanism was released while a child was still in the stroller — which could happen if an older child was playing with the stroller, for example — most of the strollers would have severe pinching, shearing or scissoring hazards for the occupant. The STEELCRAFT, VALCO, ROGER ARMSTRONG and CHICCO are less susceptible to this problem because their folding mechanisms are either out of reach of most children or are less likely to cause injury.

Also, an adult could be at risk if they were careless when folding any of these strollers. The ‘umbrella’ models — MACLAREN, BEBE CARE, VALCO and CHICCO — have most of their movable parts near the release mechanism, so are more likely to trap a careless finger.

Safety and durability tests

So how did the 10 strollers fare? Only three failed any of our tests: the BEBE CARE and ROGER ARMSTRONG each failed a durability test and the CHICCO failed a safety test (see *About the rest*, page 61). These models are four-wheelers, but that wasn't a factor in their failure; three-wheel models in previous tests have had similar problems. ■

HOW WE TESTED

Safety Tests are based on the Australian standard.

Testers checked the harness straps are adjustable and of adequate strength and length; that the child is securely restrained; and that there are no possible entrapment points for fingers or limbs, or sharp edges. They also tested the stability of the stroller and that the brakes worked well.

Durability They put the strollers on our ‘rolling road’ rig for 64 hours at 5 km/h, as per the standard. The three-wheelers were then tested for 10 hours at 10 km/h, to see how they'd stand up to jogging. All strollers were

attached to a machine that continuously simulates the action of mounting a kerb. These tests show whether anything breaks, falls off or stops working properly after regular use.

Ease of use Testers checked adjustments, such as reclining and the safety harness, plus loading and unloading the basket, using the brakes and locking the front wheel. They also folded and unfolded the strollers took them over rough terrain, up and down stairs and through doorways, and tested how easily they fit into the boot of a family car.

PRODUCT	PERFORMANCE			FEATURES							SPECIFICATIONS			
Brand / model (in order of ease of use score within groups)	Passed all our safety tests	Passed all our durability tests	Ease of use score (%)	Number of wheels	Reversible handle / seat direction	Pocket	Leg rest positions	Backrest positions	Front bar or tray	Rear brakes	Maximum recommended weight of child (kg)	Bottom basket capacity (kg)	Stroller weight (kg)	Dimensions (cm, H x W x D)*
RECOMMENDED														
Steelcraft Strider 3 30136	✓	✓	75	3	Seat	✓	6	3	Bar	Linked	17	4	12.3	108 x 70 x 111
ZuZu Ink 476	✓	✓	65	3		✓	1	3	Bar	Linked	17	4	16.7	111 x 69 x 111
Childcare Blaze 013520	✓	✓	60	3		✓	1	3 (A)	Bar	Individual	17	3	13.2	107 x 70 x 111
MacLaren Quest W0708013	✓	✓	60	4		✓	1	4		Individual	25	2	6.1	102 x 47 x 88
Swallow Bravo	✓	✓	60	3		✓	5	3	Bar	Linked	22	5	14.9	107 x 61 x 111
Mothers Choice Ensor Sport JG772	✓	✓	55	3		✓	1	3	Tray	Linked	20	4	11.1	99 x 60 x 112
Valco N3486	✓	✓	55	4			1	(B)		Linked	15	2	7.7	100 x 53 x 93
NOT RECOMMENDED														
Roger Armstrong Elyse H603	✓		60	4		✓	1	4	Tray	Linked	17	4.5	9.4	101 x 56 x 88
Bébé Care Orion 011016	✓		55	4		✓	2	5		Individual	17	3	7.3	105 x 48 x 88
Chicco Ct 0.5 Evolution		✓	55	4		✓	1	5		Linked	18	3	8.1	108 x 48 x 95

Strollers must meet a new safety standard, which includes a wrist strap.

USING THE TABLE

Safety and durability tests A stroller can only pass or fail these tests.

Ease of use score This is made up of:

- Various adjustments (safety harness, seat recline and so on): 25%
- Loading and unloading the basket, using the swivel wheel lock, applying and releasing the brakes: 25%
- Manoeuvring through doors, up and down stairs, turning a tight corner, over rough terrain: 25%
- Unfolding, folding and carrying (including fitting into a car boot): 25%

Features See *What to look for*, right.

Price recommended retail, as of Dec 2007.

TABLE NOTES

* Maximum dimensions when in use.

(A) Three fixed positions, each with some variable adjustment.

(B) No fixed positions; backrest can be set in any position between fully reclined and upright.

Price (\$)

britax.com.au	449
ingoodcare.com.au	298
childcareproducts.com.au	207
macclarenbaby.com	252
64 3333	199
motherschoice.com.au	199
valco.com.au	270
55 727	200
cnpbrands.com.au	135
43 5570	180

What to look for

NEW STANDARD REQUIREMENTS

From July 2008, a mandatory standard will apply to strollers. Among other requirements, strollers will require a **wrist tether strap** (with a label warning the adult carer to use it), to help reduce the chance of a stroller rolling away. The **brake pedals/levers will have to be red**, so they're easily seen (and more likely to be used). In this test, the MOTHERS CHOICE, CHILDCARE and SWALLOW have a tether strap and the VALCO, ROGER ARMSTRONG and STEELCRAFT have red brake levers. Manufacturers advised us that all the tested models will be fully compliant by July 2008. Some models have already been updated to comply since this test.

STROLLER BASICS

Size Measure the stroller to make sure it fits into your boot without needing the wheels removed.

Folding and unfolding Try folding and erecting it in the shop and see if you can carry it comfortably.

Adjustable backrest Can move to at least one semi-reclined position; some can be fully reclined (best for sleeping or babies under six months).

Detachable front bar The child can hold onto it when seated upright. It can also serve as a barrier.

Footrest Reduces the likelihood of injury by the child's feet touching the ground or getting caught in the front wheel.



Canopy, which can be extended to provide shade or shelter. Some have a viewing window so when it's extended you can still see your child.

Adjustable handle Can be adjusted to a comfortable height to suit different users.

Storage A basket or tray under the stroller for carrying things like nappies, baby food or shopping. Some have a pouch behind the seat or other small pockets where you can keep small items.

Wheels Look for front wheels that swivel to make manoeuvring easier and that can be locked in the forward direction when travelling at higher speeds or over rough terrain. Large wheels tend to be better on kerbs and stairs; inflatable ones can puncture but generally give a comfier ride.

SAFETY FEATURES

Brakes Look for linked, foot-operated brakes on the rear wheels, so the left and right brakes can be activated by a single action rather than applied individually. Test them; apply the brakes and then push the handle to see if the stroller moves. Foot-operated brakes save you bending down, but make sure your feet fit under them easily; some need to be flipped up from below, plus low-lying pedals may interfere with walking.

Five-point harness — two shoulder straps (attached to the backrest at shoulder level), waist straps and a crotch strap. The waist straps in particular should be securely linked to the stroller's frame so the child can't lean out and tilt the stroller. Give the harness a tug to check the seat doesn't pull away from the frame. The straps should be adjustable to allow for growth and the buckles easy to use (for you, not your child). The mandatory standard allows harnesses without shoulder straps, but CHOICE thinks a five-point harness is the safer choice.

CHECK FOR

- Protruding parts that can hit your child's head or small parts that can detach easily and pose a choking risk.
- Gaps that could trap fingers; yours or your child's.
- Any sharp edges or points.
- A child-resistant mechanism for locks.
- Stability; is the stroller stable enough not to tip easily?

HANDY EXTRAS

Tyre pump A hand-operated pump for inflating tyres.

Leg cover An attachment you can pull over the child's legs in cold weather.

Rain cover A clear plastic sheet to drape over the stroller.

Insect cover A mesh cloth to protect the child from nasties.

Removable liner This provides additional comfort, and can also help support smaller babies. None of the tested models has one.

Nowadays there are so many product recalls we may not be able to print all of them in CHOICE. For comprehensive recall information go to the Product Recalls Australia website: www.recalls.gov.au. If you don't have web access, call the Product Safety Policy section of the ACCC on 02 6243 1262.

Companies often rent 1800 numbers for a couple of months after a recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

FOOD ■ Health Brands Australia has recalled **Heatheries Kidscare Rice Rounds**, Cheese and Bacon flavour, 200 g multipack (individual packs of 25 g). The best-before date is 21.10.08.

The problem The pack contains a conflicting allergen claim.

What to do Don't eat it. Return it to the place of purchase for a refund.

FOOD ■ Australian Seafood Producers has recalled **Daruma Tuna Steaks**, and **Tuna Steaks** purchased at Foodland stores in SA, which weren't labelled but packaged in a clear plastic cryovac bag and are of various weights. The packaged product has a best-before date of 18 Sep 2008, and all use-by dates are affected for tuna steaks bought at Foodland stores.

The problem It contains a biotoxin, histamine.

What to do Don't eat it. Return it to the place of purchase for a refund.

TOY ■ Modern Brands has recalled **Vtech Discovery Playground**, product code 51500, barcode 650803515003, sold in Kmart stores since 18 June 2007.

The problem The cloth tabs attached to one part of the product may become detached from their plastic holder and pose a choking hazard.

What to do Remove it from the reach of children. Return it to Modern Brands to receive a refund. You don't need the original packaging or receipt. For more information call 1800 675 772, Monday to Friday, 9 am to 5 pm, AEST, and select option 3, or email voluntaryrecall@modernbrands.com.au.

TOY ■ The Reject Shop has recalled **Dump Truck**, 42 cm, barcode number 21767654, sold at The Reject Shop since October 2007.

The problem It doesn't comply with the mandatory safety standard for children's toys, and could break into small pieces when dropped, posing a choking hazard for young children.

What to do Remove it from the reach of young children. Return it to your nearest Reject Shop for a refund, or for more information call 1800 633 886.

EXERCISE EQUIPMENT ■ Coles Group has recalled **Sports Ltd Rowing Action Exerciser**, sold in Kmart stores since November 2007.

The problem The resistance band may be kinked, causing it to snap under tension.

What to do Stop using it. Return it to any Kmart store for a refund, or for more information call 1800 124 125.

CANDLE ■ Kmart has recalled the following **Homemaker Candle Holders**, sold at Kmart stores since September 2007.

- Table Top Candle Holder (15 x 15 x H30), APN 93008031400820.

- Table Top Candle Holder (10 x 10 x H18), APN 93008031400837.
 - Set of 4 Orange Hanging Lanterns, APN 9300800727130.
 - Set of 4 Lime Hanging Lanterns, APN 9300800727147.
 - Set of 4 Pink Hanging Lanterns, APN 9300800727154.
 - Set of 4 Purple Hanging Lanterns, APN 9300800727161.
 - Set of 4 White Hanging Lanterns, APN 9300800727178.
 - Set of 4 Assorted Hanging Lanterns, APN 930080072718.
 - Set of 4 Assorted Butterfly Hanging Lanterns, APN 9300800727192.
 - Set of 12 Assorted Butterfly Hanging Tea Light Lanterns, APN 9300800727208.
 - Set of 12 Assorted Hanging Tea Light Lanterns, APN 9300800727215.
 - Assorted Butterfly Waxed Filled Pots, APN 9300800727222.
 - Assorted Colour Wax Filled Pots, APN 9300800727239.
 - 3 pack Faux Suede Candles, APN 9300803060814.
- The problem** The material used to produce the candles may not self-extinguish if ignited.
- What to do** Don't use them. Return them to any Kmart store for a refund.

SUNGLASSES ■ Pacific Magazines has recalled **brown sunglasses**, fixed to the cover of the February 2008 issue of *Marie Claire* magazine.

The problem They don't meet the lens performance requirements of the Australian standard for sunglasses and fashion spectacles.

What to do Return them via free post to Pacific Magazines, Reply Paid 62441, Locked Bag 9000, North Sydney 2059, by 6 June 2008, including your postal details. A pair of black sunglasses will be sent as a replacement. The black sunglasses also supplied with some issues of *Marie Claire* aren't affected. For more information call 02 9464 2682.

SUNGLASSES ■ Chelsea Girl has recalled the following **Chelsea sunglasses** sold by Chelsea stores between 22 October 2006 and 10 December 2007:

- Sun-9808 — mocha colour with matt brown sides, matt brown frames, light brown gradient lens, heart shaped detail. And brown, dark brown to light brown sides, dark brown top down to light brown, light brown gradient lens, heart-shaped detail.
- Sun-9811 — brown, clear brown sides, clear brown frames, light brown gradient lens, silver and diamantes.
- Sun-9812 — brown, clear brown sides, silver metal frame, light brown gradient lens, silver detail.
- Sun-9815 — natural, tortoiseshell sides, tortoiseshell frames, light brown gradient lens, tortoiseshell with laser print detail.

- Sun-9818 — coffee, solid brown with CC white laser, bronze frames, light brown gradient lens, white laser print detail.

The problem They don't meet the lens performance requirements of the Australian standard for sunglasses and fashion spectacles.

What to do Don't use them when driving, as they may limit the ability to recognise blue and green LED lights, such as those used by emergency vehicles. Return them to the place of purchase for a refund.

SUNGLASSES ■ Fossil Retail Stores has recalled the following **Fossil Fashion Spectacles**, sold by Fossil between March 2004 and December 2007: MS3239650 — Bridge Pink; MS3456040 — Citrine Silver; PS3345400 — Cort Navy; PS345100 — Cort Silver; MS3479470 — Ewan Blue; MS3298060 — Freeze Gunmetal; MS3355060 — Hip Hog Gunmetal; MS3234040 — Ledge Silver; MS3463710 — Lilac Gold; MS3426650 — Lovely Pink; MS3359040 — Mariner Silver; MS3610040 — Mary Silver; MS3486040 — Merritt Silver; MS3486470 — Merritt Blue; MS3365040 — Mystic Silver; MS3383040 — Rocker Silver; MS3733001 — Sheba Black, and MS3733040 — Sheba Silver.

The problem They don't comply with the mandatory labelling requirements of the Australian standard for sunglasses and fashion spectacles.

What to do Don't use them as sunglasses or when driving at night. Return them to any Fossil store for a refund, or by mail (postage will be refunded) to Fossil Retail Stores (Australia), PO Box 6277, Frenchs Forest 2086.

SEATBELT ■ Hemco Industries has recalled **Hemco General Purpose Seat Belts**, part number 1790006 (found on the cloth label sewn to the end of the belt), manufactured between November 2006 and November 2007, and with a stick-on label with the date 15 Oct 2006 stuck on the retractor mechanism.

The problem It may fail under extreme conditions.

What to do Call 03 5334 1213 to arrange for a replacement, or contact the place of purchase.

For more information go to www.hemco.com.au/recall.html.

AIR CONDITIONER ■ Fujitsu General has recalled Fujitsu General Air Conditioners, models AOT 45 LJAYL, serial number range T000001 to T001400; AOT 45 LJBYL, serial number range T000001 to T004925; AOT 54 LJAYL, serial number range T000001 to T001800; and AOT 54 LJBYL, serial number range T000001 to T0063900.

The problem The thermal block connections may fail, resulting in overheating and damage.

What to do Call 1800 088 226, Monday to Friday, 9 am to 5 pm AEST to arrange for a service technician to check the connections. Have your model and serial number details ready when you call.

+ COMPLEX COPYRIGHT RULES

Fair copyright rules for all media

What's the difference between a digital audio file and a digital video file? Under Australian copyright law, consumers are allowed to format-shift their digital audio files but are prohibited from doing the same to digital video files. So we can transfer songs from a CD to our MP3 players, but we can't copy a DVD onto a laptop computer.

Consumers shouldn't have to negotiate a complex legal web of what they can and can't do.

The first reason for this difference is that most DVDs come with technological protection measures to stop copying, whereas most CDs don't. It's been illegal to circumvent technological protection measures, even for legitimate purposes, since our Copyright Act was changed in 2006 to comply with the Australia-US Free Trade Agreement (AUSFTA).

The second reason is that consumers have no general right to make reasonable use of their legally acquired copyrighted material. Instead, we have complex 'fair dealing' exceptions to copyright infringement that apply very differently to different types of media. So even if a copyrighted DVD had no copy protection, it would still be a copyright infringement to transfer the digital video file to another device such as a computer hard drive — even though it would have been perfectly legal had it involved an audio file.

Consumers should be able to make reasonable use of all their legally acquired media for legitimate private purposes. They shouldn't have to navigate a complex web of confusing legislative exceptions to know what they can and can't do.

The government is currently reviewing the prohibitions against digital-to-digital copying for video (along with other audio-visual material and photographs). To find out more and to read CHOICE's submission, go to: choice.com.au/faircopyright. ■

CARBON OFFSETS CHOICE'S SUBMISSION TO THE ACCC

To read CHOICE's full submission to the Australian Competition and Consumer Commission, go to choice.com.au and search for 'ACCC submission'.

+ GREEN WATCH

Quality carbon offsets

CHOICE's Green Watch campaign aims to bring green claims up to scratch, expose shonky advertising and help Australians get a better deal for themselves and the environment.



There's a fast-growing range of products and services claiming to neutralise or reduce your carbon emissions, and it's confusing even for the most eco-savvy consumers. So CHOICE

is watching the carbon offsets market.

'Carbon neutral' was the New Oxford American Dictionary's word of the year in 2006 — which just shows how trendy going green has become.

When you buy a carbon offset, you're paying someone else to reduce their greenhouse gas emissions. So you'd want to know that the reduction really happens. Unfortunately, the market for carbon offsets is still new and poorly regulated. With no single mandatory or widely accepted standard for them, it's hard to be sure the offsets you're sold will really reduce greenhouse gas emissions.

It's also hard to know whether you're getting a good deal. There are many ways of calculating the carbon amount involved, of achieving the emissions reduction and, increasingly, many ways to buy them. There's no simple way to compare offset products.

In CHOICE's submission to the Australian Competition and Consumer Commission, we've said that this new market needs to help consumers compare and choose good-quality carbon offsets. There needs to be stronger rules and standards to ensure the products people are buying live up to their promises. We want:

- All offsets offered for sale to generate proven, guaranteed, permanent emissions reduction.
- Standard information to be disclosed by offset providers and on-sellers, to enable comparison of offers on total and per tonne price, what exactly is being offset, how and when.

In November 2007 CHOICE we advised members to — in this order — measure your emissions, reduce them, switch to accredited GreenPower (see page 32), and only then to buy carbon offsets to mop up remaining emissions that can't be avoided. For more information, go to choice.com.au/campaigns. ■

SAVE 43% CHOICE.COM.AU

Upgrade to choice.com.au for just \$12.50 per quarter (normally \$21.95) – only for personal CHOICE magazine subscribers. Join now, this offer is for a limited time only.



BEST
VALUE
EVER!

Get the reports you want, when you want, for a discounted price.

Upgrade to CHOICE Plus and get full access to **choice.com.au** – the perfect companion to your magazine.

Gain instant access to:

- Hundreds of product and service reports.
- Bonus tests and individual reports from CHOICE Computer.
- Interactive product comparison tools.
- Easy-to-use interactive features.
- Finance and investment calculators.

Sign in to **choiceextra.com.au**
and follow the prompts

CHOICE team

CHIEF EXECUTIVE OFFICER Peter Kell. **Executive assistant** Georgina Saltos. **DEPUTY CEO** Norm Crothers. **EDITORIAL DIRECTOR** Anny Friis. **CHOICE Editor** Jane Mackenzie. **Senior copy editors** Rosemary Morrow, Kerri Tyler. **Writers/journalists** this issue Birgit Baader, Chris Barnes, Karina Bray, Candice Chung, Rachel Clemons, Alan Dooley, Steve Duncombe, Holly Enriquez, Denis Gallagher, Connor Koudsy, Kim Laurie, Kate Norris, David Oakenfull, Chris Ruggles, Matthew Steen. **Content generation manager** Michael Hohl. **Chris Barnes, Rachel Clemons, Alan Dooley, Denis Gallagher, Uta Mihm, Liz Munn, Kate Norris, David Oakenfull, Martha Psiroukis, Chris Ruggles, Matthew Steen.** **CHOICE ONLINE Manager** Linda Magee. **CHOICE Plus Manager** Darrell Sly. **Creative director** Cynthia Nge. **Designer** Danny Wynne. **Multimedia web designer** Nic Munro. **Online production co-ordinator** Seth Mortensen. **Photographer** Gene Ross. **TESTING & BUSINESS OPERATIONS** **General manager** Norm Crothers. **RESEARCH & TEST CENTRE Manager** John Ashes. **Laboratory manager** Klaus Neuscheler. Jo Bektash, Antonio Bonacruz, Geoff Day, Joseph Ho, Peter Horvath, Mohamed Jawahir, Fiona Mair, Scott O'Keefe, Neill Patterson, Benjamin Rossetto, Ryan Shaw, Norbert Suto, James Thomson, Petr Valouch. **Buying** Dorothy Kneale, Sonja Scodeller. **Research** Tina Hendrikson, Christine Shaday, Joe Sydney. **Test Research** John Ashes. **CONSUMER SERVICES Manager** Bill Stuart. **Darren Ashton, David Hill, Silvana Ristevska, Daniel Sanese, Katrina Zivkovich.** **FINANCE** Vivien Power. **Jeanette Dwyer, Kang Zhu Ge, Sera Raicaica.** **ADMINISTRATION** Gail Slaviero. **INFORMATION SERVICES Manager** Peter Feint. **Ruben Reyes.** **ICT Manager** Stephen Macdonald. **Ferdous Azad, Charles Ly, Jason Ranieri.** **SUBSCRIPTIONS Manager** Bill Stuart. **Supervisor** Nootaya Hwang. **Co-ordinator** Thelma Bracken. **Lynda-Maree Morgan, Fiona Pollard, Phasathorn Woottiarporn.** **MARKETING & COMMUNITY** **General manager** Mary Harris. **COMMUNITY RESEARCH Manager** Lara Matkovic. **Katherine Rock, Stephanie Tye.** **MARKETING** Danielle Brown, Jasmine Hughes. **QUALITY & RISK MANAGEMENT** **General manager** Barbara Manchester. **QUALITY ASSURANCE & CONTROL Manager** Pam Gardiner. **Assistant manager** Corinna Horgan. **Verifiers** Ben Bridges, Sharon Cauduro, Tracey Clancy, Will Farrier, Karen Palmer, Alister Sharp, Melanie Stopic. **POLICY & CAMPAIGNS** **General manager** Gordon Renouf. **Eliisa Freeman, Clare Hughes, Michael Johnston, Catherine Raffaele.** **Campaigns Co-ordinator** Marini Switzer. **MEDIA Manager** Christopher Zinn. **Elise Davidson.** **HUMAN RESOURCES** Julie Shearman. **Marketing statistics** supplied by GfK Marketing Services. **Financial data** supplied by Cannex.

No commercial use policy: Our ratings and reports may not be used in advertising or for any other commercial purpose. CHOICE will take all steps to prevent commercial use of its materials, its name, and the name of its publications and products. Please report any apparent violation to CHOICE, 57 Carrington Road, Marrickville 2204; phone 02 9577 3399; fax 02 9577 3355; email ausconsumer@choice.com.au.

Permissions: Reproduction of CHOICE, CHOICE Books and other CHOICE publications, in whole or in part, is forbidden without prior written permission (and is never permitted for commercial purposes).

Address requests to CHOICE Consumer Services at the address above. **Your privacy:** We're committed to protecting your privacy, and abide by Australia's National Privacy Principles. We never sell or give our mailing lists to other organisations. If you'd like to read our privacy policy, it's on our website or we can send you a copy.

All literary and artistic works and compilations of information are the subject of Australian and international copyright © Australian Consumers' Association 2007. CHOICE™ is a trademark of the Australian Consumers' Association. All rights reserved.

COUNCIL MEMBERS: The Australian Consumers' Association is governed by an honorary council elected by the voting members. (For information about voting membership, call 02 9577 3399.) Members of the council give their time without reimbursement, and are not engaged as principals in industry, advertising or sales. **Council:** Chair Jenni Mack. **Deputy Chair** Joan Staples. **Members** Peter Bray, Robin Brown, Bill Davidson, Rachel Duxon, Sandra Milligan, Frank Muller, Ian Spight.

The Australian Consumers' Association is a not-for-profit company limited by guarantee. ACN 000 281 925. ABN 72 000 281 925. Registered office: 57 Carrington Road, Marrickville 2204, Australia.

How to use this index

Bold type indicates a test, survey or trial report, unbold type indicates other articles.

* Indicates an update of a previous report, additions or corrections to reports, small follow-up items, letters or recalls.

Additives, food	May	DVD/hard disc recorders	Nov	Insurance	car	Nov, Feb*	Ranges, dual-fuel,	90 cm	Oct, Dec/Jan*
Alcopops	Mar	DVD players, in-car	Mar	home and contents	Apr		Real estate, find an agent	Oct	
Air conditioners				hospital	Aug		Recycled water	Mar	
portable	Oct	EBay, buying tickets on	Aug	switching	Mar		Refrigerators — see Fridges		
large split-system	Nov	Electricity, green	Jun, May	Internet filters	May		Restaurant hygiene	Nov	
small split-system	Jun	Espresso machines	Mar	Internet/phone bundling	Aug		Retirement, transition to	Apr	
Airline satisfaction	Jun	Ethical investing	Sep	Investment, ethical	Sep		Rice cookers	Apr	
Anti-aging cosmetics	Jul						Running shoes	May	
Appliance reliability	Sep	Factory outlet shops	Nov						
		Fairtrade, buying	Nov						
Baby food	Jul	Fans, ceiling	Sep	Juice, açai, goji, nomi, etc	Sep				
Bank account, switching	Mar	Farmers' markets	Mar	Juicers	Nov		Sausages, gourmet	Nov	
Bank penalty fees	Jul, Sep*	First aid kits	Mar	Knives, cook's 20 cm	Mar		Shoes	Apr	
Barbecues, gas	Dec/Jan	Folding bikes	Feb				cost comparison	Oct	
Beer, premium	Aug	Food		Ladders, small	May		running	May	
Bikes, folding	Feb	additives	May	Landline, do you need one?	Oct		Shonkys, The	Dec/Jan	
Bodyboards	Dec/Jan	baby food	Jul	Lawnmowers, electric	Nov		Shopping online vs in-store	Nov	
Body numbers	Mar	cheddar cheese	Oct	LG steam washer/dryer	Aug		Shopping rights	Dec/Jan	
Breadmakers	Sep	chicken	Mar	Light bulbs, compact	Nov		Skin cancer clinics	Feb	
		chips, etc	Dec/Jan	fluorescent	Oct		Slow cookers	May	
Camcorders	Dec/Jan	cholesterol-lowering		Luggage, carry-on	Apr		Smart phones	Dec/Jan	
Cameras, digital	Oct	foods	Apr				Sofa beds	Aug	
Carbon-neutral		cream and substitutes	Sep	Micro hifi systems	Feb		Sparkling wine/champagne	Dec/Jan	
flights	Jul	olive oil	Jun	Microwave ovens	Jun		Stairladders, small	May	
home	Nov	organic food	Aug	MP3 players	Sep, Dec/Jan		Sterols in foods	Apr	
Carpet cleaning	Mar	parmesan cheese	Jul				Strawberries	Feb	
Carpet spot cleaners	Mar	sausages, gourmet	Nov	Moisturisers	Mar		Strollers		
Cars		strawberries	Feb	men's	May		4-wheel	Sep	
GPS navigation systems		vegetables, frozen mixed	Aug	Mortgages, alternative	Oct		3- and 4-wheel	May	
	Aug, Feb	yoghurt	Jun	MP3 players	Sep, Dec/Jan		Suitcases, small	Apr	
in-car DVD players	Nov, Feb*	Fridge thermometers	Feb				Supermarket		
insurance	May	Fridges		Nanotechnology	Jul		consumer survey	May	
servicing	May	mixed sizes	Nov, May	Net filters	Jul		'own brands'	Nov	
types	Sep	wine	Dec/Jan	Noise-cancelling	Aug		price survey	Jul	
Ceiling fans	Sep			headphones			Switching bank account/	Mar	
Champagne/sparkling wine	Dec/Jan	Gas heaters, unflued	May				credit card/insurance		
		Glucosamine	May						
Charities	Apr	GPS							
Cheese	Oct	car navigation	Aug, Feb				Telephones — see Phones		
cheddar	Jul	handheld	Dec/Jan	Olive oil	Jun		Television		
Chicken	Mar	Green power	Jun, May	Online vs in-store shopping	Nov		66 cm	Oct	
Child/baby concerns		Greywater, using	Feb		Aug		80 cm	Dec/Jan	
babies	Jul	Grinders, coffee	Jul	Organic food			101-107 cm	Jul, Apr	
cots, portable	Apr	Hair removal		Ovens			PVRs with two tuners	Apr	
high chairs	Jul	home	Sep	dual-fuel ranges, 90 cm	Oct, Dec/Jan*		Thermometers, fridge	Feb	
strollers		professional	Sep	microwave	Jun		Throat lozenges	Jun	
4-wheel	Sep	Hair straighteners	Feb				Tickets, buying on eBay	Aug	
3- and 4-wheel	May	Hand luggage	Apr	Packaging reduction	Apr		Toy safety	Dec/Jan	
Chips, etc	Dec/Jan	Headphones, noise-	Aug	Parmesan cheese	Jul		Travel, healthy	Feb	
Cholesterol-lowering		cancelling		Perfume, spotting a fake	Dec/Jan, Feb*		Treadmills	Oct	
foods	Apr	Health					Tyres	Sep	
Clothes dryers	Jun	body numbers	Mar	Pet food	Jun		Vacuum cleaners		
Coffee grinders	Jul	dental costs	May	Phone/internet bundling	Aug				
Convection heaters	Jun	first aid kits	Mar	Phones	Jul				
Cooktops, electric	Apr	glucosamine	May	cordless	Jul				
Cordless phones	Jul	throat lozenges	Jun	dual-mode, with VoIP	Feb				
dual-mode, with VoIP	Feb	travel, healthy	Feb				Vegetables, frozen mixed	Aug	
Cats, portable	Sep	Hesters	Jun	mobile — see Mobile			VoIP	Feb	
Cream and substitutes	Mar	convection	Jun	phones					
Credit card, switching	Mar	gas, unflued	May	smart	Dec/Jan		Walking poles	Aug	
		Hifi systems, micro	Feb	Portable air conditioners	Oct		Washer/dryer, steam	Aug	
Dental costs	Jul	High chairs	Jun	Portable cots	Jun		Washing machines		
Diamonds, buying	Apr	Home and contents		Power, green	Jun, May				
Digital camcorders	Dec/Jan	insurance	Apr	Property e-valuations	Mar		Water-efficient home	Oct	
Digital cameras	Oct	Home loans, alternative	Feb	Pumps for rainwater	Mar		Water, recycled	Mar	
Digital music players	Sep, Dec/Jan	Home theatre systems	Feb	PVRs with two tuners	Apr		Wine fridges	Dec/Jan	
		Hospital insurance	Nov				Wine, sparkling	Dec/Jan	
Dishwashers	Aug, Feb, Apr*	Hygiene in restaurants	Nov						
Dryers, clothes	Apr						Yoghurt	Jun	

Contact us



Subscribers' helpline

Contact us for advice on all consumer issues.

PHONE 02 9577 3399

FAX 02 9577 3377

Subscription prices

PERSONAL SUBSCRIPTION

1 year \$78, 2 years \$145.

FOR COMPANIES/INSTITUTIONS

1 year \$125, 2 years \$239.

Email us

Send in your questions for our experts to answer or just share your consumer experiences.

EMAIL ausconsumer@choice.com.au

Write to us

CHOICE

57 Carrington Road,
Marrickville 2204

Use CHOICE Shopper

Call 1300 360 655

All you need is the model name and number of what you want to buy, the price you want to beat, and your CHOICE subscriber number (from the mailing label with the magazine).

Use CHOICE extra

www.CHOICEextra.com.au

Free website with CHOICE articles from Jan/Feb 2002, with links to PDFs of many of them for quick and easy reference. No need to search for that back copy! To use this website, log in with your subscriber number.

Join CHOICE.com.au

For an extra \$12.50/qr, CHOICE magazine subscribers can access hundreds of test reports and articles on finance, food, health, computing, cars, and products and services for babies.

You'll also find interactive tools to help you choose products. To subscribe, go to choiceextra.com.au and follow the prompts.

The prize for best entry goes to M Pratley for the round circle rugs. Thanks also to G Penna, C Abras, S Wright, A Hinshelwood, J Denholm, J Maratos and A Connerton for their contributions to this month's **Hard Word**.

If you have any examples you think deserve to be on this page, send them to **The Hard Word, CHOICE**, 57 Carrington Road, Marrickville 2204. Please don't email us your entries — we need the originals.

Do I hear February 32nd?
Anybody? Anybody?

Pizza Hut www.pizzahut.com.au

Free professional camera classes with every camera purchase!!

GEORGES
cameras • computer • hi-fi

56-58 York St, Sydney
Ph: (02) 9290 7300
347 George St, Sydney
Ph: (02) 9290 2323

5 day clearance sale

SALE
ENDS
31st Feb!

Large pizzas from \$7.95

participating stores and online
Expires 30th February 2008.

ALWAYS FRESH
Flat Fillet ANCHOVIES
IN EXTRA VIRGIN OLIVE OIL
Good for you!

PER 100g	2.1g	25.1g
Fat: Total	0.9g	10.0g
Saturated	0.2g	2.1g
Carbohydrate	0.0g	0.0g
Sugars	0.0g	0.0g
Sodium	540mg	6000mg

INGREDIENTS:
ANCHORY (58%), EXTRA VIRGIN OLIVE OIL, SALT.

THIS PRODUCT CONTAINS FISH.
PRODUCT OF SPAIN

One little letter makes a big difference

A rather unfortunate abbreviation of Justine Clarke's kids' DVD "I like to sing" ...

As opposed to square circle rugs?

West Lakes
DYMOCKS
Discover More

ASN 4027056559
Shop 180/181 Mallett Road
West Lakes Boulevard
Ph: (08) 8356 3005 Fax: (08) 8353 4007
www.dymocks.com.au
Tax Invoice

Date: 20/12/07 11:32
1111 3 MB Trx 30X5932

Code	Qty	Price	Disc	Extn
9306710741599	1	19.95		19.95
JUSTINE CLARKE - I LIKE TO SING				
Total (including GST)				19.95
Total Savings				0.00

SAVE \$5
ROUND CIRCLE RUGS

50cm. Other colours available in-store.

Reg \$29.95
VIP \$24.95

Well, you'd hope so

Every month we get several examples of nut packages warning they contain nuts. Now we have a tin of fish that contains ... wait for it ... fish!

\$899

CONVIAIR MOBILE REVERSE CYCLE AIR CONDITIONER (Cooling Only)

3.5kW cooling,
12000BTU, SUPER COOLING

convair

A reverse-cycle air conditioner that doesn't reverse.

Oops!

For returning your ex's fine glassware, maybe?

700 sheets

TISSUE & BUTCHER'S PAPER

No unbroken or scratched goods.

(A) Your goods will look great when they leave in their distribution.

(B) Wrap your goods tightly and prevent them from rattling around in transit and getting damaged.

BUTCHER'S PAPER

No unbroken or scratched goods.

goods will look great

If only...

you'll love coles 30 ice cream cup cones

3 x 10 fresh sealed packs

125g Net

"The crunch makes it more fun!"